CITY OF REDLANDS

CITY COUNCIL

A G E N D A

NOVEMBER 15, 2022

PAUL BARICH
Mayor

EDDIE TEJEDA
Mayor Pro Tempore

DENISE DAVIS
Council Member

JENNA GUZMAN-LOWERY
Council Member

MICK GALLAGHER
Council Member
***
JEANNE DONALDSON
City Clerk

ROBERT DAWES
City Treasurer

CHARLES M. DUGGAN JR.
City Manager

YVETTE M. ABICH GARCIA
City Attorney

5:00 p.m. Open Public Meeting, Public Comment (Closed Session)
6:00 p.m. Open Session (Public Meeting)
* * *
City Council Chambers
Civic Center, 35 Cajon Street, Redlands, California

A G E N D A

The following information comprises the agenda for the regular meeting of the City Council of the City of Redlands at the times noted below in the City Council Chambers, Civic Center, 35 Cajon Street, Redlands, California, on:

TUESDAY, NOVEMBER 15, 2022

To join via Zoom on a computer, laptop, or smart device
Please visit www.zoom.us, click on Join a Meeting
Enter the **Meeting ID 824 4618 0187**, then run the Zoom launcher
To join via Zoom with audio only (cell phone or landline):
Dial **1-877-853-5247**
Enter the **Meeting ID 824 4618 0187**

Should the City lose connectivity on Zoom, we will halt the meeting until it can be restored. To check on the status of remote connectivity in the event of an outage, go to the City's website at www.cityofredlands.org or to the City's Facebook page at @CityofRedlands or the Instagram page at @CityofRedlands_CityHall.

In the event the City cannot reestablish Zoom connectivity in a reasonable amount of time, the mayor will adjourn the meeting to a future date.

***PLEASE NOTE**:* Anyone desiring to speak on an agendized item at this meeting may do so during the consideration of that item. Due to time constraints and the number of persons who may wish to give oral testimony, public comments will be limited to three (3) minutes.

- **To provide comment while participating from Council Chambers:**
  - Although it is not required, speakers are encouraged to submit a "Speaker Sign Up Sheet" before the meeting is convened. Forms are available in the Office of the City Clerk or in Council Chambers.
  - After the meeting has convened, you may place the speaker form in the basket at the table along the north wall of the Chambers. Please do not disturb the City Clerk while the meeting is in progress.

- **To provide comment through Zoom (on a computer, laptop, or smart device)**:
  - Click the "Raise Hand" button and the moderator will unmute you when it is your turn to speak

- **To provide comment via audio only (cell phone or landline)**:
  - Dial *9 to "Raise Hand". The moderator will identify you by your area code and last 3 numbers of your telephone number when it is your turn to speak.

PLEASE SILENCE CELL PHONES, PAGERS AND OTHER ELECTRONIC COMMUNICATION DEVICES UPON ENTERING THE CHAMBERS

5:00 P.M.

A. **Call City Council Meeting to Order.**

B. **Public Comment**
(Any person wishing to provide public comment on a closed session matter may do so at this time.)

C. **Recess City Council Meeting to a Closed Session**

1. Conference with labor negotiator - Government Code §54957.6
(Assistant City Manager McConnell)

Agency Negotiator:	Laura Kalty, Liebert Cassidy Whitmore; Janice McConnell; Tommi Ng, Danielle Garcia
Employee Organizations:	Redlands Association of Department Directors Redlands Association of Management Employees Redlands Association of Mid-Management Employees Redlands Association of Safety Management Employees Redlands Association of Fire Management Employees Redlands Police Officers Association Redlands Professional Firefighters Association Redlands Civilian Safety Employees Teamsters Local 1932 Redlands Chapter

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6:00

D. **Reconvene City Council Meeting**

E. ***Invocation by Mayor Barich***
Pledge of Allegiance by Boy Scout Troop 44, and Troop Leader John Hinkleman
(In keeping with long-standing traditions of legislative invocations, this City Council meeting may include a brief invocation. Such invocations are not intended to proselytize or advance any one, or to disparage any other, faith or belief. Neither the City nor the City Council endorses any particular religious belief or form of invocation.)

F. **Closed Session Report**
(No reportable action taken in closed session unless otherwise announced by the City Attorney at this time.)

G. **Presentations**

1. Redlands Pet Adoption (Redlands Animal Services)

2. Presentation of proclamation declaring November 26, 2022, as Small Business Saturday to Evan Sanford of Redlands Chamber of Commerce (Mayor Barich)

3. Presentation of proclamation declaring the month of November 2022 as National Family Caregivers month in the City of Redlands to SEIU Local 2015 (Mayor Pro Tem Tejeda)

4. Presentation of proclamation recognizing November 20, 2022 as National Transgender Day of Remembrance in the City of Redlands to Roux Whitmore and Dr. Traci Lowenthal (Council Member Davis and Council Member Guzman-Lowery)

5. Recognition of Tom Fontanes for the artwork he created for the City of Redlands.

H. **Public Comment - City Council**
(At this time, the City Council will provide an opportunity for the public to address them on any subject, within the jurisdiction of the City Council, which is not already scheduled on this agenda. However, any matter that requires action will be referred to staff for a report and possible action at a subsequent meeting. Comments will be limited to three {3} minutes.)

I. **Consent Calendar**
(The following routine items have been recommended for approval and will be acted upon simultaneously unless separate discussion and/or action is requested by a Councilmember or a member of the audience.)

1. Approve the regular meeting minutes of November 1, 2022 (City Clerk Donaldson)

2. Authorize issuance of a proclamation declaring November 26, 2022 as Small Business Saturday (Mayor Barich)

3. Authorize issuance of a proclamation declaring the month of November 2022 as National Family Caregivers Month in the City of Redlands (Mayor Pro Tem Tejeda)

Recycled Paper

4. Authorize issuance of a proclamation declaring November 20, 2022, as National Transgender Day of Remembrance in the City of Redlands (Council Member Davis and Council Member Guzman-Lowery)

5. Adopt Resolution No. 8410 authorizing remote teleconference meetings by the City Council and all Boards, Commissions, and Committees of the City in accordance with Assembly Bill 361 (2021) for a period of 30 days (Council Member Davis)

6. Adopt Resolution No. 8407 declaring the City Council's intention to vacate the street right-of-way that is four (4) feet wide and 152.91 feet in length along the easterly side of North Church Street, and across the front property line of the residential property located 710 North Church Street (APNs: 0170-071-03-0000 and 0170-071-04-0000). This proposal is exempt from environmental review pursuant to Section 15061(b)(3) of the California Environmental Quality Act Guidelines (Development Services Director Desatnik)

7. Adopt Resolution No. 8408 declaring the City Council's intention to vacate excess public right-of-way along East Highland Avenue, which is ten (10) feet wide and 998 feet in length, along the southerly side of East Highland Avenue and approximately 50 feet west of Redlands Street, along the entire frontage of the previously approved Tract Map No. 20065 (APN: 0174-161-25-0000). This proposal is exempt from environmental review pursuant to Section 15061(b)(3) of the California Environmental Quality Act Guidelines (Development Services Director Desatnik)

8. Accept grant award from San Manuel Band of Mission Indians to fund the 2022 Redlands Emergency Services Academy in the amount of $28,000 and authorize an additional appropriation of the same to the Police Department (Police Chief Catren)

9. Approve the two-year contract with Principal Insurance providing vision services for eligible bargaining units (Assistant City Manager McConnell)

10. Approve the two-year contract renewal with Principal Insurance providing Dental and Life Insurance coverage for all City employees and their eligible dependents (Assistant City Manager McConnell)

11. Adopt Resolution No. 8405 appointing Small Claims Court Representatives to act for the City of Redlands and on the City's behalf and Rescinding Resolution No.8227 (Assistant City Manager McConnell)

12. Adopt Resolution No. 8385 amending the City's Water Efficiency Rebate Program, the additional appropriation of $50,000 from the Water Fund, and determine that adoption of this resolution is exempt from environmental review in accordance with Section 15061(B)(3) of the State's guidelines implementing the California Environmental Quality Act (Municipal Utilities and Engineering Director Harris)

13. Approve the first amendment to the non-professional services agreement with TESCO Controls, Inc. for the Water Distribution System Supervisory Control and Data Acquisition (“SCADA”) Upgrade Project to extend the term of the agreement (Municipal Utilities and Engineering Director Harris)

14. Approve the request for commercial vendors and the temporary closure of 5th Street for the Stronger Together Now Holiday Community Drive within Ed Hales Park on November 19, 2022, and determination that the event is categorically exempt from environmental review pursuant to Section 15311 of the State's guidelines implementing the California Environmental Quality Act (Assistant City Manager Boatman)

Recycled Paper

15. Approve the professional services agreement with Step Up on Second, Inc. for homeless support services for an amount not-to-exceed $130,000, approve the professional services agreement with The Youth Hope Foundation for homeless support services for an amount not-to-exceed $70,000, and determine that the services provided are exempt from environmental review pursuant to Section 15061 (b)(3) of the State's guidelines implementing the California Environmental Quality Act (Assistant City Manager Boatman)

16. Adopt Resolution No. 8413 authorizing the execution and delivery of Motor Vehicle Lease Agreements with Toyota Financial Services, and approve the lease of light duty motor vehicles from Toyota Financial Services at the cost of $178,500 annually, for a total amount not to exceed $535,500 over a three-year term (Assistant City Manager Boatman)

J. **Communications**

1. Video Series: Working for You (Public Information Officer Baker)

K. **Public Hearings**

1. Public Hearing to consider and adopt Ordinance No. 2950- An Ordinance of the City of Redlands amending Title 15 (Buildings and Construction), by adopting by reference the 2022 California Building Code, 2022 California Residential Code, 2022 California Plumbing Code, 2022 California Electrical Code, 2022 California Mechanical Code, 2022 California Green Building Standards Code, 2022 California Energy Code, 2022 California Historical Building Code, and the 2022 California Existing Building Code, and making amendments related thereto (Development Services Director Brian Desatnik)

   (Mayor to declare meeting open as a public hearing)

   1. Public hearing to consider Ordinance No. 2950 amending Chapters 15.04, 15.06, 15.08, 15.10, 15.12, 15.16, 15.18, 15.22 and 15.23 of the Redlands Municipal Code relating to the adoption of the 2022 California Building Code (California Code of Regulations, Title 24, Part 2 including Appendices G,H,I,J), 2022 California Residential Code (California Code of Regulations, Title 24, Part 2.5 including Appendices AH,AJ,AS and AX), 2022 California Plumbing Code (California Code of Regulations, Title 24, Part 5), 2022 California Electrical Code (California Code of Regulations, Title 24, Part 3), 2022 California Mechanical Code (California Code of Regulations Title 24, Part 4), 2022 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), 2022 California Energy Code (California Code of Regulations, Title 24, Part 6), 2022 California Historical Building Code (California Code of Regulations, Title 24, Part 8), and the 2022 California Existing Building Code (California Code of Regulations, Title 24, Part 10), by reference and making amendments thereto and, adding Chapter 15.60 to the Redlands Municipal Code relating to Safety Assessment Placards

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2. **APPLICANT: MADISON CAPITAL GROUP**
(PROJECT PLANNER: TAMARA HARRISON, CONTRACT PLANNER)

Public Hearing to consider the development of a proposed self-storage facility on a 6.34-acre property located on the south side of Naples Avenue between Wabash Avenue and Jasper Avenue that includes the following permits and approvals (Development Services Director Brian Desatnik)

(Mayor to declare meeting open as a public hearing)

a. **Resolution No. 8402 (Mitigated Negative Declaration)** - Consideration of a Mitigated Negative Declaration prepared for the proposed project in accordance with Section 15074 of the California Environmental Quality Act.

b. **Resolution No. 8403 (Intention to Vacate - Street Vacation No. 186)** - A request to consider a resolution declaring the City Council's intention to vacate a portion of excess public right-of-way, three feet (3'0") wide and approximately 404 feet in length, for Street Vacation No. 186 located on the westerly side of Jasper Avenue and along the project site's frontage on Jasper Avenue.

c. **PUBLIC HEARING** to consider **Ordinance No. 2951 (Ordinance Text Amendment No. 363)** – A request to amend RMC Section 18.96.070 for the Highway Commercial (C-4) zone to permit self-storage facilities as a conditional use subject to a Conditional Use Permit on properties in the C-4 zone that are a minimum of five acres in size.

d. **PUBLIC HEARING** to consider **Resolution No. 8404 (Conditional Use Permit No. 1168)** - A request to construct a self-storage facility consisting of eleven buildings and totaling 123,456 square-feet with 835 storage units, a 700 square-foot leasing office, and related site improvements to include driveways, sidewalks, perimeter improvements, landscape, lighting, and utility connections on a 6.34-acre project site, and approve the related Socio-Economic Cost/Benefit Study prepared for the project.

3. Public Hearing to consider Ordinance No. 2946 amending Chapter 10.24 of the Redlands Municipal Code relating to the establishment of prima facie speed limits on various streets throughout the City of Redlands and determination that adoption of the ordinance is exempt from environmental review pursuant to Section 15061(b)(3) of the California Environmental Quality Act (Municipal Utilities and Engineering Director Harris)

(Mayor to declare the meeting open as a public hearing)

L. **New Business**

1. Discussion and possible action relating to the cancellation of the January 3, 2023, regular meeting of the City Council (Mayor Barich)

2. Consideration of Ordinance No. 2952 amending Chapter 2.16 of the Redlands Municipal Code relating to the establishment of a business preference program for City procurement (Council Member Gallagher)

3. Consideration of a Side Letter Agreement between the City of Redlands and the Redlands Association of Management Employees (Assistant City Manager McConnell)

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4. Consideration of Ordinance No. 2948 amending Chapter 15.20 of the Redlands Municipal Code and adopting the 2022 Edition of the California Fire Code which incorporates by reference the 2021 International Fire Code, with necessary California and City of Redlands amendments. This Ordinance will nullify and replace the current Ordinance No. 2900, that was enacted in 2019 as part of the previous fire code adoption process (Fire Chief Sessler)

5. Consideration of a software as a service agreement, a service level agreement, a pricing agreement and related professional services for the electronic plan review software ProjectDox with Avolve Software Corporation for the amount not-to-exceed $592,362.50 (Development Services Department Director Desatnik)

6. Consideration of the second amendment to the professional services agreement with Parsons Water & Infrastructure, Inc. to engineer the Wastewater Treatment Plant Improvement Project Phase 2, an additional appropriation of $404,528, and determination that approval of the Amendment is exempt from environmental review pursuant to Section 15061(b)(3) of the State's guidelines implementing the California Environmental Quality Act (Municipal Utilities and Engineering Director Harris)

7. Consideration of the non-professional service agreement with Kirtley Construction, Inc. for on-call wastewater collection system repair and construction services on an as-needed basis for an amount not-to-exceed $750,000, and determination that this action is exempt from environmental review pursuant to section 15301(b) of the State's guidelines implementing the California Environmental Quality Act (Municipal Utilities and Engineering Director Harris)

M. **Individual Council Member Announcements and/or Reports on Activities**
(No collective discussion or action.)

N. **Adjournment**
The next regular meeting of the City Council will be held on December 6, 2022.

If you challenge any proposed development entitlement listed on this agenda in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City Council at or prior to this public hearing.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact Goutam Dobey, of the Municipal Utilities and Engineering Department at (909) 798-7584 ext 2. Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

(28 CFR 35.102-35.104 ADA Title II)

Any writings or documents distributed to a majority of the City Council regarding an open session agenda item less than 72 hours before this meeting are available for public inspection at the City Clerk's Office or at the dais of the City Clerk once the open session begins.

Staff reports or other written documentation relating to items referred to on the agenda are available at the A. K. Smiley Public Library, 125 West Vine Street, Redlands, California, and on the City's website referenced below.

Regular meetings are televised live on Redlands TV Channel 3 (Spectrum) and Channel 35 (Frontier) and re-broadcast at 7:00 P.M. the following Wednesday, Friday and Sunday; and at 9:00 A.M. Thursday, Saturday and Monday. Meetings are also streamed live and archived for later viewing on demand on the City's website at www.cityofredlands.org. Agendas, staff reports and minutes of the City Council of the City of Redlands are available online at: www.cityofredlands.org.

City Council Meeting **I. 1.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Approve the regular meeting minutes of November 1, 2022 (City Clerk Donaldson)

MOTION:

I move to approve the regular meeting minutes of November 1, 2022.

Attachments

Regular meeting minutes of November 1, 2022

MINUTES

Regular meetings of the City Council and the Board of Directors of the Successor Agency of the former Redevelopment Agency of the City of Redlands held in the Council Chambers, Civic Center, 35 Cajon Street, on November 1, 2022 at 5:00 P.M.

Present: Paul Barich, Mayor
Eddie Tejeda, Mayor Pro Tempore
Denise Davis, Council Member
Jenna Guzman-Lowery, Council Member
Mick Gallagher, Council Member

Staff: Charles M. Duggan, Jr., City Manager; Yvette M. Abich Garcia, City Attorney; Jeanne Donaldson, City Clerk; Janice McConnell, Assistant City Manager; Chris Boatman, Assistant City Manager; Carl Baker, Public Information Officer; Chris Catren, Police Chief; Danielle Garcia, Management Services/Finance Director; Brian Desatnik, Development Services Director; John Harris, Municipal Utilities and Engineering Director; Rich Sessler, Fire Chief

Mayor Barich called the meeting to order and announced there were no closed session matters scheduled for the Council to consider. The meeting was recessed at 5:00 P.M.

RECONVENE CITY COUNCIL MEETING

The meeting reconvened at 6:00 P.M. with an invocation by Council Member Davis followed by the pledge of allegiance to the American flag.

PRESENTATIONS

Redlands Pet Adoption – No presentation was made.

Recognition of Tom Fontanes & Artwork Created for City

Artist Tom Fontanes was unable to attend the meeting, but Mayor Barich recognized him for the artwork he created for the City of Redlands. He showcased the piece of art and announced it would be proudly displayed in the Mayor's office.

PUBLIC COMMENT

Mayor Barich explained that comments could be presented in-person, via Zoom, via cell phone or landline.

TVSP EIR Project - Steve Rogers claimed that Council's approval of the Transit Villages Specific Plan / EIR project on October 18, 2022 should be officially revoked and considered null and void because the City did not mail out a public notice to property owners pursuant to California government code. He added he thought the City Manager's newly approved employment agreement should also be revoked.

Homelessness - Luis complained about the growing homeless population around Alta and Lugonia Avenue. He said he had witnessed blatant drug use in an alley near him and he urged the City to take action to address the problem.

CONSENT CALENDAR

Minutes

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously approved, by roll call vote, the regular meeting minutes of October 18, 2022.

Vote: 5 - 0 Passed

Proclamation Family Court Awareness Month

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously approved, by roll call vote, the issuance of a proclamation declaring November 2022 as Family Court Awareness Month in the City of Redlands.

Vote: 5 - 0 Passed

Proclamation Veterans, Military, and Their Families Month

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously approved, by roll call vote, the issuance of a proclamation declaring November as Veterans, Military, and Their Families Month.

Vote: 5 - 0 Passed

Resolution No. 8409 Remote Teleconference Meetings

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously approved, by roll call vote, Resolution No. 8409 authorizing remote teleconference meetings by the City Council and all Boards, Commissions, and Committees of the City in accordance with Assembly Bill 361 (2021) for a period of 30 days.

Vote: 5 - 0 Passed

Letter of Support SBCTA Grant Application for Congested Corridors Program

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously authorized, by roll call vote, Mayor Barich to sign a letter of support for the San Bernardino County Transit Authority (SBCTA) to the California Transportation Commission's 2022 Solutions for Congested Corridors Program grant application related to the Metrolink San Bernardino Line: CP Lilac-Sycamore Avenue Capacity Improvements Project.

Vote: 5 - 0 Passed

Department of Defense Supplies Agreement

Police Chief Catren provided background of the State Plan of Operations Agreement between the State of California and the City for the use of excess Department of Defense supplies and equipment. The City was required to annually execute the attached agreement with the State as part of this program. In prior years, the City has received rifles, a Mine-Resistant Ambush Protected (MRAP) vehicle and night vision gear through the LESO program, saving Redlands taxpayers hundreds of thousands of dollars. All equipment was fully functional and was assigned for department use. As public comment, John Roach expressed opposition to this program, questioning the optics of police accepting military equipment when he said the city's crime rate was low. He wondered what the maintenance costs were for such vehicles as the MRAP. Chief Catren pointed out his department was not planning to obtain any additional equipment at this time.

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Mick Gallagher, the City Council approved, by roll call vote, the State Plan of Operations Agreement between the State of California and the City of Redlands for the use of excess Department of Defense supplies and equipment and authorized the Chief of Police to execute the agreement on behalf of the City.

Vote: 4 - 1 Passed

NAY: Council Member Jenna Guzman-Lowery

Traffic Signal Component Cabinets Procurement

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously approved, by roll call vote, the sole source procurement of two (2) traffic signal component cabinets from Swarco for $61,037.03.

Vote: 5 - 0 Passed

Amending Contract University St / Brockton Ave Traffic Signal Improvements Project

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously approved, by roll call vote, the first amendment to the public works contract with Elecnor Belco Electric, Inc. for the University Street and Brockton Avenue Traffic Signal Improvements Project to extend the time for completion by one hundred eighty (180) calendar days.

Vote: 5 - 0 Passed

Engineering Services California St/Redlands Blvd Intersection Widening Project

Municipal Utilities and Engineering Director Harris reviewed the Professional Services Agreement with CASC Engineering and Consulting, Inc. to provide engineering services for the California Street and Redlands Boulevard Intersection Widening Project. As public comment, Steve Rogers stated he thought that CASC Engineering was operating in a conflict situation by offering to design this particular public works project while simultaneously serving as the City's consultant responsible for improvement plan checking and subdivision map review. Mr. Rogers added that he considered the City to be in violation of the Professional Engineers Act by not having a CA Registered Civil Engineer serving in the position of the MUED Director. Director Harris responded, explaining the contract was a stand-alone agreement for one project and there was no conflict. The City was not in violation of the Professional Engineers Act and his department was well staffed with qualified engineers.

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Mick Gallagher, the City Council unanimously determined, by roll call vote, that approval of a Professional Services Agreement with CASC Engineering and Consulting, Inc. to provide engineering services for the California Street and Redlands Boulevard Intersection Widening Project is exempt from environmental review pursuant to Section 15061(b)(3) of the State's guidelines implementing the California Environmental Quality Act; and approved the Professional Services Agreement with CASC Engineering and Consulting, Inc. for an amount not-to-exceed $231,930 to provide engineering services for the California Street and Redlands Boulevard Intersection Widening Project.

Vote: 5 - 0 Passed

Lease Agreement at Sunset Reservoir Site

Due to a source of income from Cathy and Kenneth Macknet within the last 12 months, Council Member Guzman-Lowery recused herself from this item for the consideration of a lease agreement with Cathy A. Macknet, Kenneth D. Macknet, and Mark R. Macknet for property with Assessor's Parcel No. 03004-5113-000 for an amount not-to-exceed $36,000 to construct a temporary reservoir to replace Sunset Reservoir.

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council determined, by roll call vote, that approval of the lease agreement with Cathy A. Macknet, Kenneth D. Macknet, and Mark R. Macknet is exempt from environmental review pursuant to Section 15061(b)(3) of the State's guidelines implementing the California Environmental Quality Act; and approved the lease agreement with Cathy A. Macknet, Kenneth D. Macknet, and Mark R. Macknet for property with Assessor's Parcel No. 03004-5113-000 for an amount not-to-exceed $36,000.

Vote: 4 - 0 Passed

Other: Council Member Jenna Guzman-Lowery (RECUSE)

Vehicle Lease Agreements

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously approved, by roll call vote, the lease agreements with Toyota of Redlands for eight vehicles in an amount of $57,400 dollars annually for a total amount not to exceed $172,200 over a three-year term; and authorized the City Manager, or his designee, to execute the lease agreements together with any other associated documents with Toyota of Redlands.

Vote: 5 - 0 Passed

Engineering Services Citywide Left-Turn Pocket Study

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously determined, by roll call vote, that approval of a professional services agreement with KOA Corporation to provide engineering services for the Citywide Left-Turn Pocket Study is exempt from environmental review pursuant to Section 15061(b)(3) of the State's guidelines implementing the California Environmental Quality Act; and approved the professional services agreement with KOA Corporation for an amount not-to-exceed $99,905 to provide engineering services for the Citywide Left-Turn Pocket Study.

Vote: 5 - 0 Passed

Kiwanis Christmas Parade In-Kind Support

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously determined, by roll call vote, that approval of the request for the event in Downtown Redlands during the Kiwanis Christmas Parade is exempt from environmental review pursuant to Section 15311 of the State's guidelines implementing the California Environmental Quality Act; authorized and approved a request for in-kind support in the amount of $19,594 related to this event; and authorized the temporary closure of E. Citrus Ave., 8th St., Orange St., Eureka St., W. State St., And Brookside Ave., on December 3, 2022.

Vote: 5 - 0 Passed

Holiday Decor and Installation Services Agreement

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously approved, by roll call vote, the agreement with Southern California Lighting Inc. DBA The Christmas Kings for holiday decor and installation services for the downtown area an amount not-to-exceed $132,000 for a two-year term, with an additional one-year extension for an amount not-to-exceed $66,000.

Vote: 5 - 0 Passed

Ordinance No. 2947 Adoption TVSP Zone Change No. 475

Development Services Director Desatnik reviewed Ordinance No. 2947, Zone Change No. 475, (Second Reading) to amend the City's Zone Map to include and identify the Transit Villages Specific Plan (Specific Plan No. 65) area as a new zoning designation on the Zone Map. As public comment, Steve Rogers reiterated his concerns that the City did not properly mail the public hearing notice to surrounding property owners near the TVSP, and he raised questions about whether the boundaries were consistent with code. Director Desatnik explained the public hearing notice for the TVSP / EIR project complied with law and was properly published in the local newspaper as a display ad.

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Denise Davis, the City Council unanimously adopted, by roll call vote, Ordinance No. 2947, Zone Change No. 475, (Second Reading), amending the City's Zone Map to include and identify the Transit Villages Specific Plan (Specific Plan No. 65) area as a new zoning designation on the Zone Map.

Vote: 5 - 0 Passed

NEW BUSINESS

ARPA Small Business Gift Card Match Program

Maira Durazo, Grants Coordinator, reviewed a purchase order and agreement with Yiftee Inc. in the amount not to exceed $2,122,903 to facilitate the implementation of the ARPA Small Business Gift Card Match Program. In an effort to improve the existing program, staff researched and learned of other California cities that are using ARPA funds to implement an E-gift card program and offer BOGO Cards as a promotion. Yiftee is used by cities due to its ease of use, best customer service rating, and no cost to the City or merchants. Purchasers are instead charged a $1 + 5% of the total e-gift card purchase cost. By implementing an e-gift card program, businesses receive their payment right away. This helps reduce the business' administrative burden.

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Mick Gallagher, the City Council unanimously approved, by roll call vote, a Purchase Order and Agreement with Yiftee Inc. in the amount not to exceed $2,122,903 from the Small Business Gift Card Match Program allocation of State and Local Fiscal Recovery Funds (SLFRF) through the American Rescue Plan Act (ARPA); and authorized the City Manager or his designee to execute the Agreement and Agreement amendments and other documents necessary to implement the Small Business Gift Card Match Program, purchase order and agreement with Yiftee Inc. in the amount not to exceed $2,122,903 to facilitate the implementation of the ARPA Small Business Gift Card Match Program.

Vote: 5 - 0 Passed

Ordinance No. 2948 California Fire Code Update

Staff requested this item be pulled from tonight's agenda. It will be rescheduled to the November 15, 2022 City Council meeting.

Network Systems Support Agreement

Eric Owens, Network Engineer of Management Services, presented an agreement with SDI Presence LLC to provide comprehensive network systems support for an amount not-to-exceed $300,000 for a period of three years. Project-based support will be provided for several long-range projects in the near term, including: the retrofit of Kmart into a new Police/Safety Hall facility, the move of the City's administrative offices to State Street City Hall (at 300 East State Street), and the comprehensive replacement of the City's phone system.

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Mick Gallagher, the City Council unanimously approved, by roll call vote, an agreement with SDI Presence LLC to provide comprehensive network systems support for an amount not-to-exceed $300,000 for a period of three (3) years, with two one-year options to extend for a total not-to-exceed amount of $500,000.

Vote: 5 - 0 Passed

Ordinance No. 2950 Building Code Update

Development Services Director Desatnik reviewed Ordinance No. 2950, amending Title 15 (Buildings and Construction), by adopting by reference the 2022 California Building Code, 2022 California Residential Code, 2022 California Plumbing Code, 2022 California Electrical Code, 2022 California Mechanical Code, 2022 California Green Building Standards Code, 2022 California Energy Code, 2022 California Historical Building Code, and the 2022 California Existing Building Code, and making amendments related thereto. The adoption process takes place every three years and the latest update was published by the State on July 1, 2022 and will go into effect on January 1, 2023. As public comment, Steve Rogers recommended this matter be under the direction of a licensed engineer rather than a planner. Director Desatnik stated this pertained to building codes and the City's Chief Building Official, John Thompson, was well qualified to oversee the process of amending the City's building codes.

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Mick Gallagher, the City Council unanimously introduced, by roll call vote, Ordinance No. 2950, amending Title 15 (Buildings and Construction), by adopting by reference the 2022 California Building Code, 2022 California Residential Code, 2022 California Plumbing Code, 2022 California Electrical Code, 2022 California Mechanical Code, 2022 California Green Building Standards Code, 2022 California Energy Code, 2022 California Historical Building Code, and the 2022 California Existing Building Code, and making amendments related thereto; and directed the City Clerk to publish a public hearing notice in accordance with Government Code Section 6066, that a public hearing to consider a recommendation to the City Council is to be held on November 15, 2022 at 6:00pm, or as soon thereafter as the matter may be heard.

Vote: 5 - 0 Passed

Groundwater Well and Booster Pump Maintenance Service

Municipal Utilities and Engineering Director Harris presented a non-professional service agreement with General Pump Company to provide groundwater well and booster pump maintenance and repair services on an as-needed basis and briefly reviewed the bidding process.

On motion of Mayor Pro Tempore Eddie Tejeda, seconded by Council Member Mick Gallagher, the City Council unanimously determined, by roll call vote, that approval of the Non-Professional Service Agreement with General Pump Company is exempt from environmental review pursuant to section 15301(b) of the State's Guidelines implementing the California Environmental Quality Act; and approved the Non-Professional Service Agreement with General Pump Company for groundwater well and booster pump maintenance and repair services on an as-needed basis for an amount not-to-exceed $375,000 per year with an initial term of one (1) year and options to extend the agreement for two (2) additional one (1) year terms.

Vote: 5 - 0 Passed

COUNCIL MEMBER ANNOUNCEMENTS AND ACTIVITIES

No Council Member Announcements were presented.

ADJOURNMENT

There being no further action required the meeting adjourned at 7:02 P.M. The next regular meeting of the City of Redlands City Council will be held on November 15, 2022.

SUCCESSOR AGENCY OF THE FORMER REDEVELOPMENT AGENCY OF THE CITY OF REDLANDS

Chairman Barich called the meeting to order and offered anyone present the opportunity to address the Board on any subject, not already on the agenda, within the jurisdiction of the Successor Agency.

PUBLIC COMMENT

None forthcoming

Minutes

On motion of Vice Chair Tejeda, seconded by Board Member Gallagher, the minutes of the regular meeting of October 4, 2022, were unanimously approved by roll call vote.

Vote: 5 - 0 Passed

ADJOURNMENT

There being no further business, the Successor Agency Board of Directors' meeting was adjourned at 7:03 P.M. The next regular meeting of the Agency will be held on December 6, 2022.

City Council Meeting **I. 2.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Authorize issuance of a proclamation declaring November 26, 2022 as Small Business Saturday (Mayor Barich)

MOTION:

I move to authorize issuance of a proclamation declaring November 26, 2022 as Small Business Saturday.

Attachments

Proclamation - Small Business Saturday 2022

PROCLAMATION

Small Business Saturday

November 26, 2022

WHEREAS, the City of Redlands celebrates our local small business community and the contributions they make to our local economy; and

WHEREAS, public awareness of the contributions made by Redlands' local businesses is key to sustaining a healthy business climate; and

WHEREAS, since 2010, the Saturday after Thanksgiving has been designated **Small Business Saturday**, a designation that has been embraced across the country by advocacy groups and public and private organizations; and

WHEREAS, in 2021, U.S. consumers spent a record high estimated $23.3 billion at independent retailers and restaurants on **Small Business Saturday;** and

WHEREAS for every dollar spent at a small business, 67-cents will return in the community through employee wages and benefits, and reinvested in other local businesses; and

WHEREAS, the 2021Small Business Saturday Coalition, comprised of national, state and local associations that helped coordinate activities for **Small Business Saturday** with small business owners and consumers, saw more than 1,000 organizations help spread the **Shop Small** message; and

WHEREAS, Redlands, California supports our local businesses that create jobs, boost our local economy, and preserve our neighborhoods.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Redlands does hereby proclaim Saturday, November 26, 2022 as **Small Business Saturday**, in the City and encourages residents and visitors to support small businesses on **Small Business Saturday** and throughout the year.

IN WITNESS WHEREOF, we hereunto affix our signatures and Official Seal of the City of Redlands on this 15th day of November 2022.

Paul T. Barich, Mayor

Attest:

Jeanne Donaldson, City Clerk

City Council Meeting **I. 3.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Authorize issuance of a proclamation declaring the month of November 2022 as National Family Caregivers Month in the City of Redlands (Mayor Pro Tem Tejeda)

MOTION:

I move to authorize the issuance of a proclamation declaring the month of November 2022 as National Family Caregivers Month in the City of Redlands

---

Attachments

Proclamation National Family Caregivers Month

PROCLAMATION

National Family Caregivers Month

WHEREAS, during this season of thanksgiving, as we pause to reflect on the many blessings that have been bestowed on us as individuals and as a city, we are especially grateful for the love of our families and friends; and

WHEREAS one of the most profound ways in which that love is expressed is through the generous support provided by family caregivers to loved ones who are chronically ill, elderly or disabled; and

WHEREAS the need for family caregivers is growing. We are blessed to live in a time when medicine and technology have helped us live longer. As a result, persons with disabilities are living longer and people over 85 are the fastest growing age group among elders; and

WHEREAS it is the dedicated families – not institutions – who provide most of the long-term care in California, often at great financial, physical, and emotional sacrifice; and

WHEREAS caregivers deserve our lasting gratitude, encouragement, and respect; and

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Redlands hereby declares the month of November 2022 as National Family Caregivers Month and encourages its residents to work through our community, health care, religious, social, business, and other organizations to offer programs and services that will provide caregivers the support and encouragement they need to carry out their vital responsibilities

IN WITNESS WHEREOF, we hereunto affix our signatures and Official Seal of the City of Redlands on this 15th day of November 2022.

_____

Paul T. Barich, Mayor

_____

Eddie Tejeda, Mayor Pro Tem

Attest:

_____

Jeanne Donaldson, City Clerk

City Council Meeting **I. 4.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Authorize issuance of a proclamation declaring November 20, 2022, as National Transgender Day of Remembrance in the City of Redlands (Council Member Davis and Council Member Guzman-Lowery)

MOTION:

I move to authorize issuance of a proclamation declaring November 20, 2022, as National Transgender Day of Remembrance in the City of Redlands.

Attachments

National Transgender Day of Remembrance 2022

PROCLAMATION

National Transgender Day of Remembrance

WHEREAS, Transgender Day of Remembrance, to honor the memory of those whose lives were lost in acts of anti-transgender violence, is an annual event which began in 1998 with a vigil to honor the memory of Rita Hester, a transgender woman who was murdered, and which now honors all transgender people lost to violence; and

WHEREAS, our entire community is diminished when we lose the talents and contributions of any member of our community prematurely, whether due to direct anti-transgender violence or due to suicide or other health or mental health effects resulting from trauma and/or discrimination; and

WHEREAS, although we are proud of the existing protections we have in place for transgender individuals, we reaffirm an ongoing commitment to promote their full inclusion into our community; and

WHEREAS, we recognize the violence, marginalization and stigmatization of all transgender people – particularly transgender people of color – is important and that attention to these issues is an extremely integral aspect of growth, advocacy, and community cohesion; and

WHEREAS, we honor the bravery and resilience of all transgender individuals who live, work or play in our county, and we encourage them to live their lives authentically, true to themselves, and most importantly, peacefully;

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Redlands does hereby proclaim November 20, 2022, as "National Transgender Day of Remembrance", and calls on our community to reflect upon the importance each individual has in our lives.

IN WITNESS WHEREOF, we hereunto affix our signatures and Official Seal of the City of Redlands on this 15th day of November, 2022.

Paul T. Barich, Mayor

Denise Davis, Council Member

Jenna Guzman-Lowery, Council Member

Attest:

Jeanne Donaldson, City Clerk

City Council Meeting **I. 5.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Adopt Resolution No. 8410 authorizing remote teleconference meetings by the City Council and all Boards, Commissions, and Committees of the City in accordance with Assembly Bill 361 (2021) for a period of 30 days (Council Member Davis)

MOTION:

I move to adopt Resolution No. 8410.

DISCUSSION:

On November 1, 2022, the City Council adopted Resolution No. 8409 authorizing remote teleconference meetings by the City Council and all Boards, Commissions, and Committees of the City in accordance with Assembly Bill 361 (2021) for a period of 30 days ending November 30, 2022. AB 361, signed into law on September 16, 2021, amends Government Code Section 54953 to provide the authority and specific requirements for public agencies to hold virtual meetings during a proclaimed state of emergency and remain in compliance with the Brown Act.

In accordance with Government Code Section 54953 (e)(3), the City Council must review the need and make findings for continuing the teleconferencing as authorized by AB 361 at least once every thirty days until the Governor terminates the state of emergency. With the adoption of Resolution No. 8410, the City Council is reaffirming its findings and compliance with AB 361 for an additional 30 days ending December 14, 2022.

SUBMITTED BY:
Council Member Denise Davis

Attachments

Reso. 8410 Teleconference Meeting

RESOLUTION NO. 8410

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS AUTHORIZING REMOTE TELECONFERENCE MEETINGS BY THE CITY COUNCIL AND ALL BOARDS, COMMISSIONS, AND COMMITTEES OF THE CITY IN ACCORDANCE WITH ASSEMBLY BILL 361 (2021) FOR A PERIOD OF THIRTY DAYS

WHEREAS, COVID-19 (also known as the "Coronavirus Disease") is a respiratory disease that has spread across the globe, with thousands of confirmed cases in California, including within the City of Redlands ("City"); and

WHEREAS, on January 31, 2020, the United States Secretary of Health and Human Services declared a public health emergency based on the threat caused by COVID-19, and the President of the United States issued a proclamation declaring a national emergency concerning COVID-19 beginning March 1, 2020; and

WHEREAS, in response to COVID-19, the Governor of the State of California issued a proclamation of a state of emergency on March 4, 2020; and

WHEREAS, the City Council of the City adopted a proclamation of a local emergency related to the COVID-19 virus on March 17, 2020; and

WHEREAS, the City is committed to preserving and fostering public access, transparency, observation, and participation in meetings of the City Council and City boards, commissions, and committees (hereafter collectively referred to as "legislative bodies;") and

WHEREAS, all meetings of the City Council and legislative bodies are open and public as required by the Ralph M. Brown Act ("Brown Act") (Government Code section 54950 *et seq*.), so that any member of the public may attend, observe, and participate in a meaningful way; and

WHEREAS, Government Code section 54953(b)(3) of the Brown Act allows a local legislative body to hold public meetings by teleconference and to make public meetings accessible telephonically or otherwise electronically to all members of the public seeking to attend and to address the local legislative body, as long as the following requirements are met:

1. Each teleconference location from which a member is participating is noticed on the agenda;
2. Each teleconference location is accessible to the public;
3. Members of the public must be able to address the body at each teleconference location;
4. At least one member of the legislative body must be physically present at the location specified in the meeting agenda; and
5. During teleconference meetings, at least a quorum of the members of the local body must participate from locations within the local body's territorial jurisdiction; and

WHEREAS, the Brown Act, as amended by AB 361 (2021), at Government Code section 54953(e), allows for remote observation and participation in meetings by members of a legislative body and members of the public without compliance with the requirements of Government Code section 54953(b)(3), subject to certain conditions; and

WHEREAS, the initial required condition of Government Code section 54953(b)(3) is a declaration of a state of emergency by the Governor pursuant to the California Emergency Services Act at Government Code section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the state and within the boundaries of the City, caused by conditions as described in Government Code section 8558; and

WHEREAS, the Governor's proclamation of a state of emergency includes area within the jurisdictional boundaries of the City; and

WHEREAS, Government Code section 54953(e)(3)(A-B), added by AB 361, provides an alternative to having public meetings in accordance with Government Code Section 54953(b)(3) when the City Council has reconsidered the circumstances of the COVID-19 state of emergency and that the following circumstances exist:

1. The state of emergency because COVID-19 continues to directly impact the ability of the members of City Council and the members of the City's boards, commissions, and committees to meet safely in person; and

2. The State of California and the County of San Bernardino continue to recommend measures to promote social distancing; and

WHEREAS, Government Code Section 54953(e) further requires that state or local officials have imposed, or recommended, measures to promote social distancing, or the legislative body finds that meeting in person would present an imminent risk to the health or safety of attendees; and

WHEREAS, such conditions now exist in the City in that (i) state and local officials do recommend social distancing measures, and (ii) emergency conditions evidenced by COVID-19 and its variants create ongoing COVID-19 cases, hospitalizations, and deaths, such that meeting in person would present imminent risk to health or safety of attendees; and

WHEREAS, the City Council affirms that it will allow for observation and participation by City Council members as well as board, commission, and committee members and the public, via Zoom, or other appropriate technology, in an effort to protect the constitutional and statutory rights of all attendees; and

WHEREAS, Government Code Section 54953 (e)(3) further requires that the City Council review the need and make findings for continuing the teleconferencing as authorized by AB 361 at least once every thirty days until the Governor terminates the state of emergency;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF REDLANDS HEREBY RESOLVES AS FOLLOWS:

Section 1. The above recitals are true and correct and are incorporated herein by this reference.

Section 2. The City Council finds that the state of emergency conditions related to COVID-19 as set forth in the Governor's and City's proclamations of emergency are on-going.

Section 3. The City Council further finds that State and county officials recommend social distancing conditions causing imminent risk to attendees as described above exist.

Section 4. The City Council hereby recognizes and affirms the existence and conditions of a state of emergency as proclaimed by the Governor, and the City, and affirms, authorizes, and proclaims the existence of a local emergency throughout the City.

Section 5. The City Council finds that the state of emergency because COVID-19 continues to directly impact the ability of members of the City Council and the members of the City's boards, commissions, and committees to meet safely in person and such fact creates an imminent health risk to such members.

Section 6. The City Council hereby authorizes the City Council, and all of the boards, commissions, and committees of the City, to conduct their meetings without compliance with Government Code section 54953(b)(3), and to instead comply with the remote meeting requirements as authorized by Government Code section 54953(e).

Section 7. The City Manager and City Clerk are authorized and directed to take all actions reasonably necessary to carry out the intent and purpose of this Resolution, including, conducting open and public meetings remotely in accordance with Government Code section 54953(e), and other applicable provisions of the Brown Act, for all City Council meetings, and all boards, commissions, and committee meetings of the City.

Section 8. This Resolution shall take effect immediately upon its adoption and shall be effective until either (i) December 14, 2022, or (ii) such time as the City Council adopts a Subsequent Resolution in accordance with Government Code section 54953(e)(3) to extend the time during which the City Council and all City legislative bodies may continue to meet remotely, without compliance with Government Code section 54953(b)(3), but otherwise as permitted by Government Code section 54953(e).

ADOPTED, SIGNED AND APPROVED this 15th day of November 2022.

ATTEST: _____ Paul T. Barich, Mayor

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, hereby certify that the foregoing resolution was duly adopted by the City Council at a special meeting thereof held on the 15th day of November 2022.

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

City Council Meeting **I. 6.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Adopt Resolution No. 8407 declaring the City Council's intention to vacate the street right-of-way that is four (4) feet wide and 152.91 feet in length along the easterly side of North Church Street, and across the front property line of the residential property located 710 North Church Street (APNs: 0170-071-03-0000 and 0170-071-04-0000). This proposal is exempt from environmental review pursuant to Section 15061(b)(3) of the California Environmental Quality Act Guidelines (Development Services Director Desatnik)

MOTION(S):

If the City Council determines that staff's recommendation is appropriate, the following motion is provided:

I move to adopt Resolution No. 8407 for the Notice of Intention to Vacate a portion of Church Street along the frontage of the property located at 710 North Church Street.

RECOMMENDATION:

On October 5, 2022, the Planning Commission reviewed the proposal, and voted 6 to 0 to adopt Resolution No. 1590 and make a finding of General Plan conformity as well as determining the proposed vacation of public right-of-way would be consistent with the 2035 General Plan.

DISCUSSION:

The applicant has filed an application to vacate excess street right-of-way in front of 710 North Church Street (see Attachment A-1 – Location Map and Aerial Photo) with dimensions of 4 feet wide and 152.91 feet in length. The proposed area for vacation contains an existing low retaining wall (approximately up to 4'0"

high) and ADA ramp that were built a few years ago to serve the existing property (see Attachment A-2). Currently, the subject property is a Supportive Housing facility serving senior residents (i.e., assisted living facility).

The subject property was previously a group home for boys. According to available street view photographs, an approximately 4'0" high retaining wall, stairs, and wrought iron fence existed at the front of the property (and within the public right-of-way) since at least 2008. Since this property was developed in the 1970s, it is likely that the retaining wall, steps, and wrought iron fence were built much earlier than 2008, although staff was not able to find building permit records on these original improvements. It was likely that the prior owner was unaware that the improvements were constructed within the public right-of-way.

The current property owner purchased the property in 2019 to establish an assisted living facility for seniors (i.e., supportive housing). As required by the Americans with Disabilities Act (ADA), senior assisted living facilities are required to provide an ADA-accessible ramp at the front of the property. Therefore, the applicant constructed the ADA ramp following the fence line established by the previous property owner, not knowing that the area is within public right-of-way.

The City's Land Use Engineering Division evaluated the situation, and has recommended that the applicant submit an application to vacate the 4 feet of public right-of-way, so that the ADA ramp and related improvements will be owned and maintained by the property owner (and the City will not be responsible for maintaining those existing improvements). Furthermore, there is already a 6-foot wide sidewalk along the front property line at 710 N. Church Street, and therefore, the City does not need the excess 4'0" wide right-of-way for public sidewalk purposes.

The proposal is exempt from environmental review in accordance with the California Environmental Quality Act (CEQA) pursuant to Section 15061(b)(3) of the State CEQA Guidelines for projects where there is no possibility of any significant environmental effects. Adoption of the resolution and vacation of public right-of-way will not result in any potentially significant environmental effects.

City Council's adoption of the resolution for Notice of Intention to Vacate (Attachment B) will initiate all noticing requirements for the requested street vacation, as required by law, and set a public hearing date for the street vacation to be heard and acted upon at the regularly scheduled City Council meeting of December 20, 2022.

ALTERNATIVES:

The City Council may:

1. Continue the matter to allow for additional information; or,
2. Not adopt the Resolution.

STRATEGIC PLAN:

Not applicable.

SUBMITTED BY:
Brian Desatnik, Development Services Director

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager
John Harris, Municipal Utilities and Engineering Director

PREPARED BY:
Catherine Lin, AICP, Principal Planner

Fiscal Impact

Fiscal Year: 22-23
Appropriation Required Y/N: No
Discussion:
The applicant paid the applicable Planning application filing fee, and the proposal will not result in any fiscal impacts.

Attachments

Attachment A-1: Location Map & Aerial
Attachment A-2: Site Photos
Attachment B-1: City Council Resolution No. 8407
Attachment B-2: Exhibit A (Legal Description)

Location Map

Street Vacation
No. 187

This map was produced by the City of Redlands, Geographic Information System.
The City of Redlands assumes no warranty or legal responsibility for the information contained on this map.
The data used to generate this map is dynamic in nature, therefore the information shown may or may not be the most current.

N
W E
S

Scale
0 160 320
Feet

City of Redlands
Department of Innovation & Technology
Geographic Information Systems

City of REDLANDS "A CITY THAT WORKS"

September 15, 2022

OneStop.mxd

Aerial Photo

Street Vacation
No. 187

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Feet

City of Redlands
Department of Innovation & Technology
Geographic Information Systems

City of REDLANDS "A CITY THAT WORKS"

September 15, 2022

OneStop.mxd

SITE PHOTOS

Source: Google Streetview (Feb. 2022)

SITE PHOTOS

Source: Google Streetview (Feb. 2022)

RESOLUTION NO. 8407

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS DECLARING ITS INTENTION TO VACATE THE STREET RIGHT-OF-WAY AT 710 N. CHURCH STREET

WHEREAS, Mr. Mike Frazier, as the authorized representative for the property owner of 710 North Church Street (APNs: 0170-071-03-0000 and 0170-071-04-0000) has submitted an application requesting vacation of the excess street right-of-way that is four (4) feet wide and 152.91 feet in length along the frontage of the subject property; and,

WHEREAS, the City may vacate all or part of a public street pursuant to Street and Highway Code Section 8300 et. Seq. and, pursuant to Streets and Highways Code Section 8340, the City may for public convenience and necessity reserve and exempt public service easements from a street vacation; and

WHEREAS, the proposed street vacation qualifies for an exemption from environmental review in accordance with the California Environmental Quality Act ("CEQA"), pursuant to Section 15061(b)(3) of the State CEQA Guidelines for projects where there is no possibility of any significant environmental effects; and

WHEREAS, on October 5, 2022, the Redlands Planning Commission reviewed the proposal and determined that the proposed street vacation will conform to the City's General Plan including the Connected City chapter; and

WHEREAS, the City Council intends to vacate the excess right-of-way, as more particularly described in Exhibit "A" to this resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF REDLANDS AS FOLLOWS:

SECTION 1. The City Council of the City of Redlands hereby declares its intention to vacate the excess street right-of-way that is four (4) feet wide and 152.91 feet in length located across the front property line at the property located at 710 North Church Street, and further described in the legal description contained in Exhibit "A" attached hereto.

SECTION 2. The proposed street vacation of the right-of-way for 710 N. Church Street is exempt from environmental review in accordance with Section 15061(b)(3) of the State CEQA Guidelines, as there is no possibility of any potentially significant environmental effects.

SECTION 3. The City Council will conduct a public hearing on the proposed street vacation at a regularly schedule public meeting of the City Council on December 20, 2022, beginning at 6:00 p.m., or as soon thereafter as the matter may be heard, to be held in the City Council Chambers located at 35 Cajon Street, Suite 2, Redlands, California 92373.

SECTION 4. The City Clerk shall give notice of the public hearing on the public hearing on the proposed vacation by:

A. Publishing notice in the Redlands Daily Facts, for two successive weeks prior to the hearing; and

B. Posting notices of the proposed street vacation conspicuously at 710 N. Church Street at least two weeks prior to the date set for the public hearing. The notice shall be posted no more than 300 feet apart, and at least three such notices shall be posted. The notice shall reference the adoption of this Resolution of Intention and shall state the date, time, and place of the street vacation hearing.

ADOPTED, SIGNED AND APPROVED this 15th day of November, 2022.

_____

Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson,
City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, do hereby certify that the foregoing Resolution was duly adopted by the City Council at a regular meeting thereof held on the 15th day of November, 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

EXHIBIT A
LEGAL DESCRIPTION AND PLAT

[Attached]

EXHIBIT "A"

STREET VACATION

LEGAL DESCRIPTION

THE FOLLOWING REAL DESCRIBED PROPERTY IN THE CITY OF REDLANDS, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA:

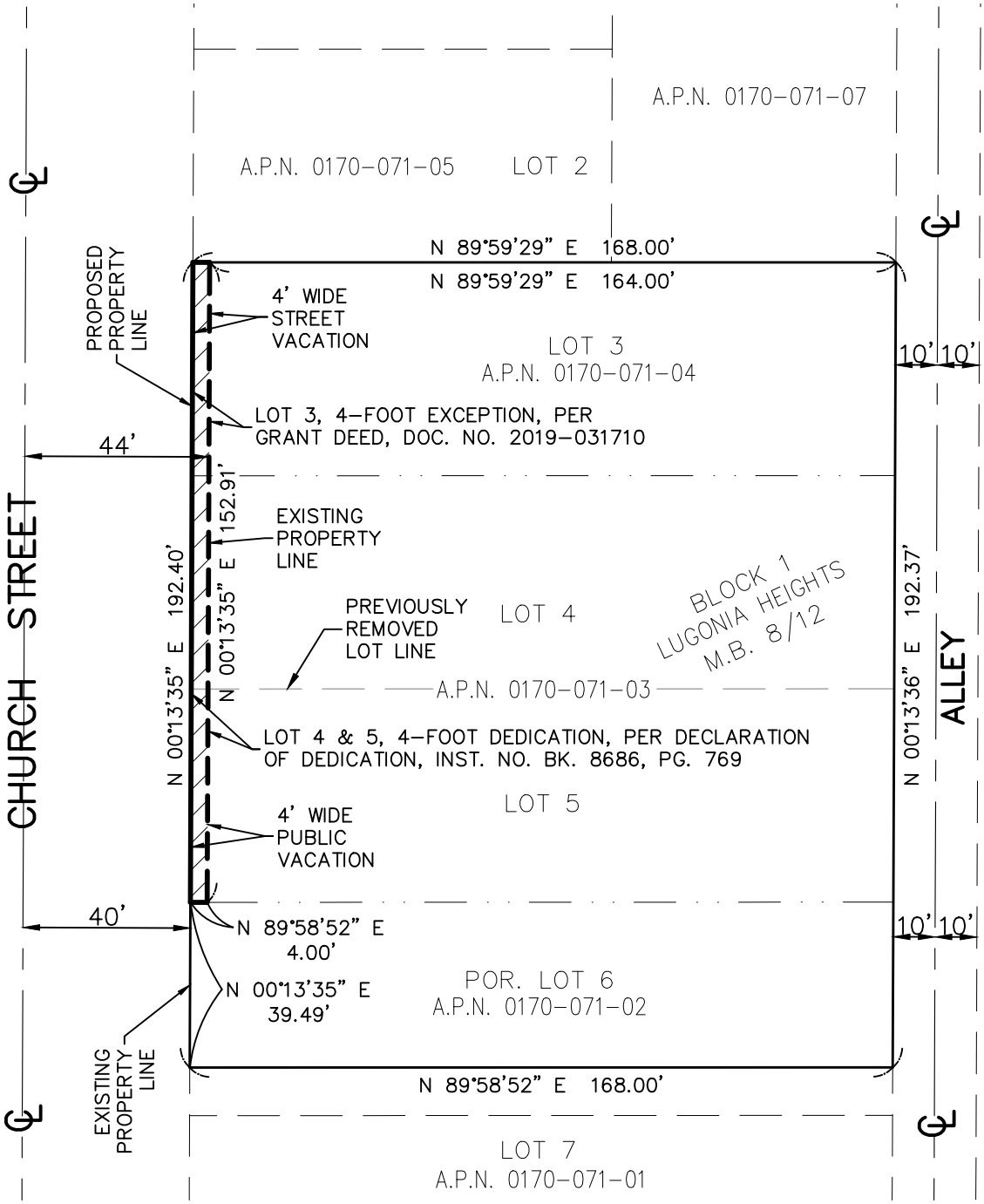
THE WEST 4 FEET OF LOTS 3, 4 & 5 OF BLOCK 1 OF LUGONIA HEIGHTS AS PER MAP RECORDED IN BOOK 8, PAGE(S) 12 INCLUSIVE OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXHIBIT "B"

STREET VACATION

PLAT

SCALE: 1"=40'



LEGEND:

- — INDICATES STREET CENTERLINE
- — INDICATES PROPOSED BOUNDARY LINE BY LOT MERGER PER SEPARATE DOCUMENT
- — INDICATES EXISTING LOT LINE TO REMOVED BY LOT MERGER PER SEPARATE DOCUMENT
- — INDICATES EXISTING LOT LINE
- — INDICATES PORTION OF STREET VACATION HEREON 611.6 SQ. FT.

LICENSED LAND SURVEYOR
BERNHARD K. MAYER
NO. 7319
Exp. 6-30-23
STATE OF CALIFORNIA

City Council Meeting **I. 7.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Adopt Resolution No. 8408 declaring the City Council's intention to vacate excess public right-of-way along East Highland Avenue, which is ten (10) feet wide and 998 feet in length, along the southerly side of East Highland Avenue and approximately 50 feet west of Redlands Street, along the entire frontage of the previously approved Tract Map No. 20065 (APN: 0174-161-25-0000). This proposal is exempt from environmental review pursuant to Section 15061(b)(3) of the California Environmental Quality Act Guidelines (Development Services Director Desatnik)

MOTION(S):

If the City Council determines that staff's recommendation is appropriate, the following motion is provided:

I move to adopt Resolution No. 8408 for the Notice of Intent to Vacate a portion of East Highland Avenue along the frontage of Tract No. 20065.

RECOMMENDATION:

On October 11, 2022, the Planning Commission voted 6 to 0 to adopt Resolution No. 1598 making a finding of General Plan conformity, and determined that the proposed vacation of public right-of-way would be consistent with the 2035 General Plan.

DISCUSSION:

The applicant has filed an application to vacate an unneeded excess portion of public right-of-way across the frontage of Tract Map No. 20065, located on the south side of East Highland Avenue between Redlands Street and Ford Street (see Attachment A). The project that was previously approved with Commission Review & Approval (CRA) No. 937 will construct a total of 29 new lots and

single-family homes on Tract 20065. The project site is currently being graded, and construction of the subdivision has begun. The requested Street Vacation area is shown on the Site Plan for Tract 20065 (see Attachment B).

East Highland Avenue is the northerly boundary of Tract No. 20065, and currently the front (northerly) property line of Tract 20065 is placed 50 feet from the centerline of East Highland Avenue. However, at this location, the ultimate half-width of Highland Avenue is supposed to be 40 feet from the centerline of the street. For this reason, there is an excess of 10 feet of right-of-way along the frontage of Tract No. 20065, which may be determined to be excess public right-of-way (not needed for roadway purposes or public access) and can be vacated. In addition, the Final Map for Tract 20065 has been recorded with San Bernardino County, and the Final Map shows that the front boundary of the tract is 40 feet from the centerline of the street (i.e., shown the approved Tract Map but without an approved Street Vacation). A note on the approved Site Plan for Tract 20065 indicates the Street Vacation area (see Attachment B).

Therefore, the applicant has applied for Street Vacation No. 188 to vacate the ten feet (10') of excess public right-of-way for East Highland Avenue along the frontage of Tract Map No. 20065, so that the City can achieve the ultimate width of the street at this location, and to reconcile the location of the front property line of the new lots to match the recorded Tract Map.

The proposal is exempt from environmental review in accordance with the California Environmental Quality Act (CEQA) pursuant to Section 15061(b)(3) of the State CEQA Guidelines for projects where there is no possibility of any significant environmental effects. Adoption of the resolution and vacation of public right-of-way will not result in any potentially significant environmental effects.

The adoption of the resolution will also initiate all noticing requirements for the street vacation request, as required by law, and set a public hearing date for the street vacation to be heard and acted upon at the regularly scheduled City Council meeting of December 20, 2022.

ALTERNATIVES:

The City Council may:

1. Continue the matter to allow for additional information; or,
2. Not adopt the Resolution.

STRATEGIC PLAN:

Not applicable.

SUBMITTED BY:
Brian Desatnik, Development Services Director

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager
John Harris, Municipal Utilities and Engineering Director

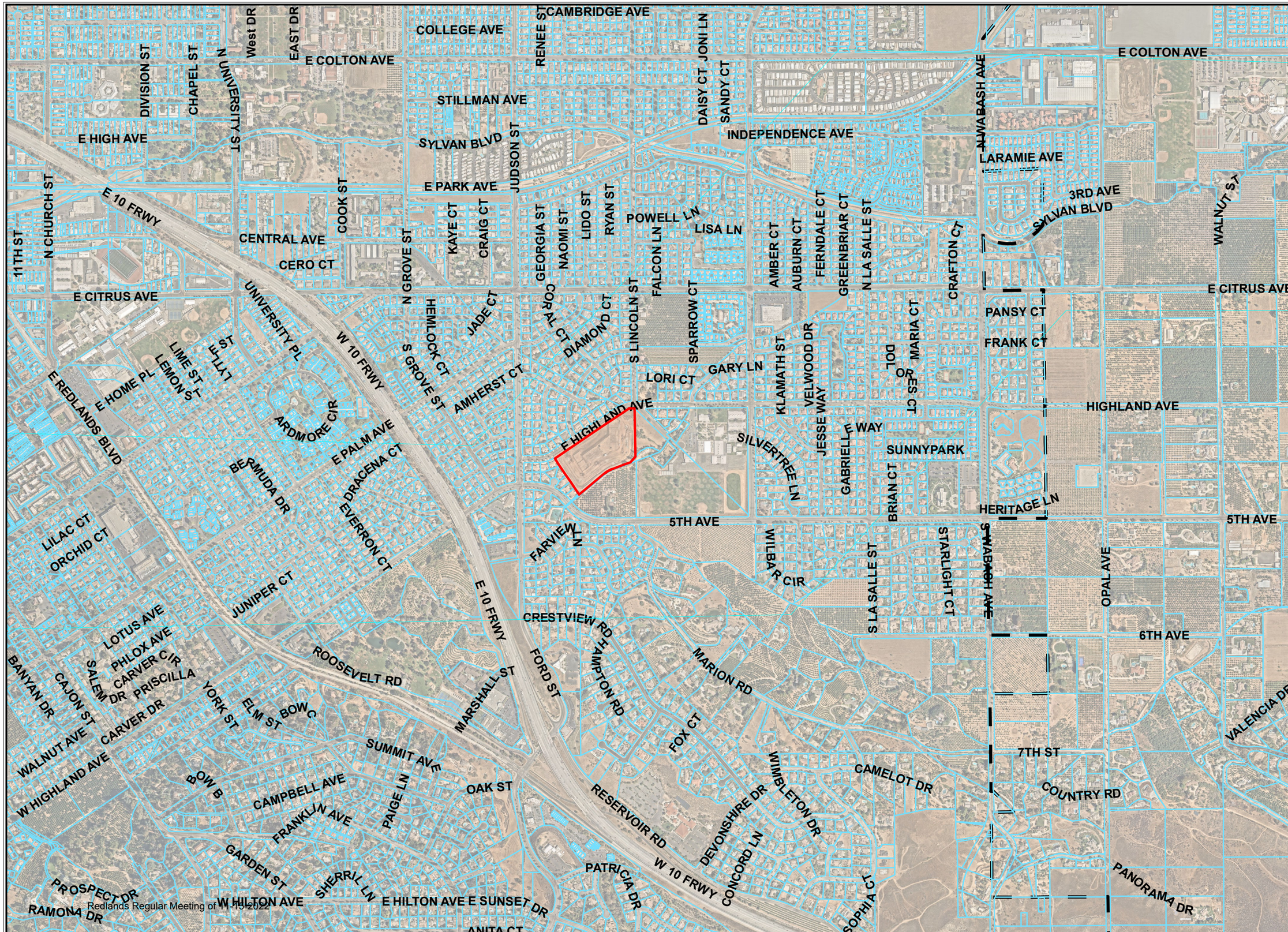
PREPARED BY:
Catherine Lin, AICP, Principal Planner

Fiscal Impact

Fiscal Year: 22-23
Revenue Generating: No
Discussion:
The applicant paid the applicable Planning application filing fee, and the proposal will not result in any fiscal impacts.

Attachments

Attachment A: Location Map & Aerial Photo
Attachment B: Site Plan for Tract 20065
Attachment C-1: City Council Resolution No. 8408
Attachment C-2: Exhibit A (Legal Description)



Location Map

Street Vacation No. 188

This map was produced by the City of Redlands, Geographic Information System.
The City of Redlands assumes no warranty or legal responsibility for the information contained on this map.
The data used to generate this map is dynamic in nature, therefore the information shown may or may not be the most current.

N
W E
S

Scale
0 800 1,600
Feet

City of Redlands
Department of Innovation & Technology
Geographic Information Systems

City of Redlands "A City That Works"

September 23, 2022

OneStop.mxd

Aerial Photo

Street Vacation No. 188

This map was produced by the City of Redlands, Geographic Information System.
The City of Redlands assumes no warranty or legal responsibility for the information contained on this map.
The data used to generate this map is dynamic in nature, therefore the information shown may or may not be the most current.

N
W E
S

Scale

0 80 160
Feet

City of Redlands
Department of Innovation & Technology
Geographic Information Systems

City of Redlands "A City That Works"

September 26, 2022

OneStop.mxd

TENTATIVE TRACT No. 20065
PRELIMINARY GRADING

IN THE CITY OF REDLANDS, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA

PORTION OF BLOCK XXXV OF ADDITION NO. 1, TO THE SECOND PRELIMINARY MAP OF REDLANDS, ER PLAT RECORDED IN BOOK 5, OF MAPS, PAGE 4, AND THAT PORTION OF SUB LOT 10, OF LOT 9 AND 10, BLOCK 77, RANCHO SAN BERNARDINO, PER MAP OF EAST REDLANDS, PER PLAT RECORDED IN BOOK 7 OF MAPS, PAGE 47, RECORDS OF SAID COUNTY.

OWNER / APPLICANT
DANIEL J. BUOYE
9225 CANYON CREST DRIVE
RIVERSIDE, CA 92507
PH: (951) 316-0487

URBAN PLANNER
URBAN ENVIRONS
307 BROOKSIDE AVENUE
REDLANDS, CA 92373
PH: (909) 798-4446

CIVIL ENGINEER
HICKS & HARTWICK, INC.
37 EAST OLIVE AVENUE, SUITE C
REDLANDS, CA 92373
PHONE: (909) 793-2257

TENTATIVE MAP PREPARED BY:
Hicks & Hartwick, Inc.
37 East Olive Ave. Ste C
Redlands, CA. 92373
909.793.2257

LICENSED LAND SURVEYOR
MATTHEW C. HICKS
L.S. No. 7644
STATE OF CALIFORNIA

REQUIREMENTS FOR TRACT MAPS
PER CITY OF REDLANDS DEVELOPMENT APPLICATION (SEPTEMBER, 2017)

1. DATE OF MAP PREPARATION: 03-14-2018
   NORTH ARROW: SHOWN ON MAP
   SCALE: 1" = 60'
   ADJACENT SUBDIVISION INFO: SHOWN ON MAP
2. ALL PAVEMENT AND RIGHT-OF-WAY WIDTHS, GRADE, AND NAME OF EXISTING AND PROPOSED STREETS OR HIGHWAYS: SHOWN ON MAP
3. LOCATION, SIZE AND PURPOSE, AND IDENTITY OF ALL EASEMENTS: SHOWN ON MAP
4. LOCATION AND SIZE OF EXISTING SANITARY SEWERS, FIRE HYDRANTS, WATER MAINS AND STORM DRAINS INCLUDING THE APPROXIMATE SLOPE OF EXISTING SEWERS AND STORM DRAINS: SHOWN ON MAP
5. LOCATION OF EXISTING OVERHEAD UTILITY LINES ON PERIPHERAL STREETS: SHOWN ON MAP
6. REQUIREMENTS PERTAINING TO IMPROVEMENTS: SHOWN ON MAP
7. REQUIREMENTS PERTAINING TO LOTS AND BUILDING SITES: SHOWN ON MAP
8. LOCATION OF PROPOSED RECREATION SITES, TRAILS AND PARKS FOR PRIVATE OR PUBLIC USE, LOCATION OF COMMON AREAS, AND AREAS TO BE DEDICATED TO PUBLIC OPEN SPACE: SHOWN ON MAP, IF ANY
9. LOCATION, SIZE, SLOPE, AND ELEVATION OF SANITARY SEWERS, FIRE HYDRANTS, WATER MAINS AND STORM DRAINS: SHOWN ON MAP
10. ROUTING OF STORMWATER RUNOFF GENERATED BY A ONE-HUNDRED (100) YEAR FLOOD: SHOWN ON MAP
11. STATEMENT AS TO THE INTENTION OF THE SUBDIVIDER IN REGARD TO SLOPE PLANTING AND EROSION CONTROL: FACES OF FINISHED CUT AND FILL SLOPES SHALL BE PREPARED AND MAINTAINED TO CONTROL AGAINST EROSION. DEVELOPER INTENDS TO PROVIDE ADEQUATE EROSION CONTROL AND PROTECTION FOR THE SLOPES PER CALIFORNIA SWPPP AND WATER QUALITY STANDARD.
12. VICINITY MAP: SHOWN ON MAP
13. CONTOUR INTERVAL: 1' CONTOURS
14. ALL EXISTING STRUCTURES AND TREES TO REMAIN OR TO BE REMOVED: SHOWN ON MAP
15. APPROXIMATE LOCATION OF ALL AREAS OF POTENTIAL STORMWATER OVERFLOW; THE LOCATION, WIDTH AND DIRECTION OF FLOW OF EACH WATERCOURSE: SHOWN ON MAP
    FLOOD ZONE PER FIRM: MAP NUMBER 06071C8719H, MAP REVISED AUGUST 28, 2008 AREA DESIGNATION: ZONE X

EXHIBIT REQUIREMENTS - PART ONE
PER CITY OF REDLANDS DEVELOPMENT APPLICATION (SEPTEMBER, 2017)

INDEX MAP ON ALL SHEETS: DOES NOT APPLY
NAME AND ADDRESS OF OWNER/APPLICANT/MAP PREPARER:
1. DELINEATED ON MAP AS REQUIRED
2. ACREAGE, NORTH ARROW, VICINITY MAP, DATE OF PREPARATION: DELINEATED ON MAP AS REQUIRED
3. DIMENSIONS AND PROPERTY LINES FOR EACH LOT: DELINEATED ON MAP AS REQUIRED
4. NAMES OF ADJOINING SUBDIVISIONS AND LANDOWNERS AND LAND USES DELINEATED ON MAP AS REQUIRED
5. LANDS DEDICATED FOR PUBLIC USE: DELINEATED ON MAP AS REQUIRED
   POINTS OF INGRESS AND EGRESS: HIGHLAND AVENUE
6. PRELIMINARY GRADING, INCLUDING PAD ELEVATIONS AND FLOW LINES WITH LOCATION OF ALL CUT AND FILL SLOPES IDENTIFIED
7. DELINEATED ON MAP AS REQUIRED
8. DELINEATED ON MAP AS REQUIRED

EXHIBIT REQUIREMENTS - PART TWO
PER CITY OF REDLANDS DEVELOPMENT APPLICATION (SEPTEMBER, 2017)
PUBLIC WORKS REQUIREMENTS FOR SITE PLANS

1. LOCATIONS, NAME, AND WIDTH OF STREETS AND ADJACENT STREETS ALSO SHOW WIDTH OF ALLEYS IF APPLICABLE
   DELINEATED ON MAP AS REQUIRED
2. PROPOSED STREET GRADES AND GRADES FOR STREETS 100 FEET BEYOND APPLICANTS PROPERTY: DELINEATED ON MAP AS REQUIRED
3. CROSS SECTION OF PROPOSED STREET IMPROVEMENTS IF DIFFERENT FROM STANDARD: NOT APPLICABLE
4. WIDTH AND PURPOSE OF EASEMENTS: DELINEATED ON MAP AS REQUIRED
5. LOCATION OF EXISTING PUBLIC UTILITIES, CULVERTS, DRAIN PIPES, AND WATER COURSES: DELINEATED ON MAP AS REQUIRED
6. APPROXIMATE RADIUS OF CURVES: DELINEATED ON MAP AS REQUIRED
7. TOPOGRAPHICAL DATA TO MAKE CLEAR THE EFFECT OF THE PROPOSAL ALSO SHOW WIDTH OF ALLEYS IF APPLICABLE: DELINEATED ON MAP
   2' CONTOURS AT GRADES 5% OR LESS: 1FT CONTOUR INTERVAL USED.

ADDITIONAL GENERAL NOTES
1. TOTAL PROJECT AREA: 454,682 SF (10.44 AC)
2. TOTAL NUMBER OF NUMBERED LOTS: 29 TOTAL
3. NUMBER OF LETTERED LOTS: 1
4. APN: 0174-161-25
5. EXISTING LAND USE: VACANT
6. EXISTING ZONING: ZONE E (EDUCATIONAL DISTRICT)
7. EXISTING GENERAL PLAN: LOW DENSITY RESIDENTIAL
8. PROPOSED ZONING: R-S (RESIDENTIAL SUBURBAN)

PRELIMINARY EARTHWORK

	CUT (C.Y.)	FILL (C.Y.)
RAW	25,400	27,800
SUBSIDENCE	-1,700	
SHRINKAGE (10%)	-2,500	
ADJUSTED VOLUME	21,200	27,800

BENCH MARK
BENCHMARK: THE CITY OF REDLANDS BM R63-BRASS DISK IN TOP OF CURB AT THE SW CORNER OF DEARBORN STREET AND CITRUS AVENUE.
ELEVATION = 1584.865

BASIS OF BEARINGS
BASIS OF BEARINGS: THE CENTERLINE OF FIFTH AVENUE AS SHOWN ON RS 154/10, BEING N89°46'50"E

PUBLIC UTILITY COMPANIES
SOUTHERN CALIFORNIA EDISON COMPANY
SERVICE PLANNING DEPARTMENT
287 TENNESSEE STREET
REDLANDS, CA 92373
CONTACT: BUD KORN
909.307.6731

SOUTHERN CALIFORNIA GAS COMPANY
PLANNING DEPARTMENT
1981 W. LUGONIA AVENUE
REDLANDS, CA 92374
CONTACT: ARTURO MORIEL
909.335.7844

FRONTIER COMMUNICATIONS
PLANNING AND CONSTRUCTION DEPARTMENT
1980 ORANGE TREE LANE SUITE 100,
REDLANDS, CA 92374
CONTACT: TERRANCE LAURY
909.255.4251

CHARTER COMMUNICATION
CONSTRUCTION DEPARTMENT
1500 AUTO CENTER DRIVE
ONTARIO, CA 91761
CONTACT: ROD MESA
909.634.3223

WATER AND SEWER
CITY OF REDLANDS
P.O. BOX 6005
REDLANDS, CA 92375-0803
909.798.7516

ADJACENT PROPERTY OWNERS
(01) APN: 0173-451-51 EDWARDS, MARK ED: 02/04/2005
(02) APN: 0173-451-52 FORD, APRIL K. ED: 09/22/1998
(03) APN: 0173-461-01 BRASSFIELD SAMUEL E. BRASSFIELD CHRISTINE E. ED: 01/30/1997
(04) APN: 0173-461-02 DAMAZIO, DEBORAH J. TR 5-20-10 ED: 06/17/2010
(05) APN: 0173-461-03 KENDERDINE, LOTTIE C. SNELLINGS, KELLY D. ED: 08/05/2005
(06) APN: 0173-461-04 YAMAMOTO FAMILY TRUST ED: 05/22/2014
(07) APN: 0173-461-05 CRAFT, E. DARRYL CRAFT, ESTELLA M. ED: 02/15/1996
(08) APN: 0173-461-06 WONG, SHU K. WONG, PIOFENG S. ED: 05/08/1992
(09) APN: 0173-461-13 HUGHES, JOSEPH A ETAL HUGHES, ELIZABETH A. ED: 03/10/2009
(10) APN: 0173-461-14 LOPEZ, STEVEN E. & TERESA R. REV TR 3/2004 ED: 04/04/2012
(11) APN: 0173-461-15 CROWLEY TRUST ED: 10/07/2008
(12) APN: 0173-461-16 EDWARDS FAMILY TRUST ED: 09/22/2016
(13) APN: 0174-0161-27 BIDART FAMILY TRUST ED: 10/19/2012
(14) APN: 0174-161-03 CASTANEDA, ANTONIO G. ED: 01/07/1999
(15) APN: 0174-161-37 BEAR VALLEY MUTUAL WATER COMPANY ED: 01/30/2014
(16) APN: 0174-161-38 GREYSTONE DEVELOPMENT COMPANY ED: 12/16/1981
(17) APN: 0174-381-01 ARMSTRONG REVOCABLE TRUST 2/29/12 ED: 03/15/2012
(18) APN: 0174-381-02 BELLERMANN, FREDRICH W. ED: 11/06/1995
(19) APN: 0174-381-03 ENGELSMAN, TOM E. ENGELSMAN, ANITA ED: 04/13/1991
(20) APN: 0174-381-04 SIBLEY, TIMOTHY R. SIBLEY, PAMELA D. ED: 08/20/1998
(21) APN: 0174-381-12 RALEY, DAVID E. RALEY, DIANE K. ED: 10/17/1975
(22) APN: 0174-161-34 GOTO, TOSHIKO TRUST ED: 04/22/2014

UTILITY LEGEND
ALL PROPOSED UTILITIES SUBJECT TO CHANGE PER IMPROVEMENT PLANS

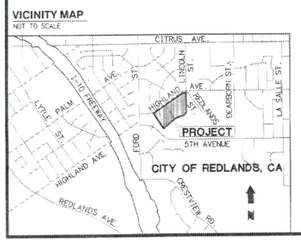
—WTR—	PROPOSED WATER MAIN (SIZE IS SHOWN)
—SEW—	PROPOSED SEWER (SIZE AS SHOWN)
(WTR)	EXISTING WATER MAIN (SIZE IS SHOWN)
(SEW)	EXISTING SEWER (SIZE AS SHOWN)
	EXISTING STORM DRAIN (SIZE AS SHOWN)
	EXISTING UNDERGROUND UTILITY AS SHOWN
(PP)	EXISTING POWER POLE
—(OH)—	OVERHEAD UTILITY LINES
	PROPOSED FIRE HYDRANT
	PROPOSED STORM DRAIN PIPE
→	DIRECTION OF FLOW

LEGEND
- EX. 5' CONTOUR
- EX. 1' CONTOUR
- PROP. 5' CONTOUR
- PROP. 1' CONTOUR
- DAYLIGHT LINE
- PROP. WALL
- ASPHALT PAVEMENT
- CONCRETE
- XX LOT NUMBER
- X,XXX SF LOT AREA
- PAD=86.6 PAD ELEVATION
- OPEN SPACE & LANDSCAPING
- 2:1 SLOPE OR LESS

ABBREVIATIONS

AC	ASPHALT PAVEMENT
APN	ASSESSORS PARCEL NUMBER
AV	AIR VAC
AVE	AVENUE
BO	BLOW-OFF
BVMWC	BEAR VALLEY MUTUAL WATER COMPANY
CB	CATCH BASIN
CL/℄	CENTERLINE
CLF	CHAIN LINK FENCE
CO	CLEANOUT
DOC	DOCUMENT
ED	EFFECTIVE DATE
EOP	EDGE OF PAVEMENT
EG	EXISTING GRADE
EL	ELEVATION
ESMT	EASEMENT
FG	FINISHED GRADE
FL	FLOWLINE
OH	OVERHEAD
OR	OFFICIAL RECORDS
PROP	PROPOSED
MAX	MAXIMUM
MIN	MINIMUM
NG	NATURAL GROUND
PP	POWER POLE
RD	ROAD
R/W	RIGHT OF WAY
SD	STORM DRAIN
SF	SQUARE FEET
SFR	SINGLE FAMILY RESIDENTS
SMH	SEWER MANHOLE
ST	STREET
STLT	STREET LIGHT
TC	TOP OF CURB
TW	TOP OF WALL

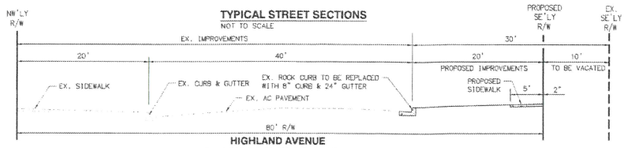
VICINITY MAP
NOT TO SCALE

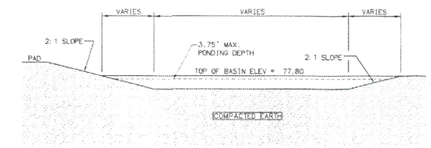


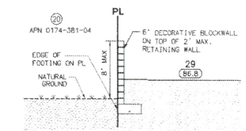
CURVE DATA TABLE

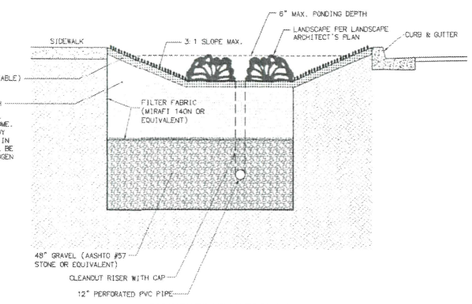
	DELTA	RADIUS	LENGTH
(A)	02°07'18"	340'	12.59'
(B)	90°00'00"	25'	39.27'
(C)	19°34'10"	456'	155'
(D)	70°43'24"	43'	53'
(E)	33°03'56"	150'	87'
(F)	90°00'00"	43'	68'
(G)	05°46'50"	600'	61'

RECEIVED
MAR 21 2018
One Stop Permit Center



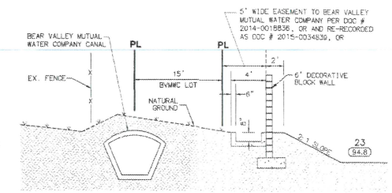


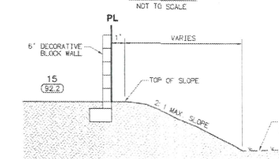


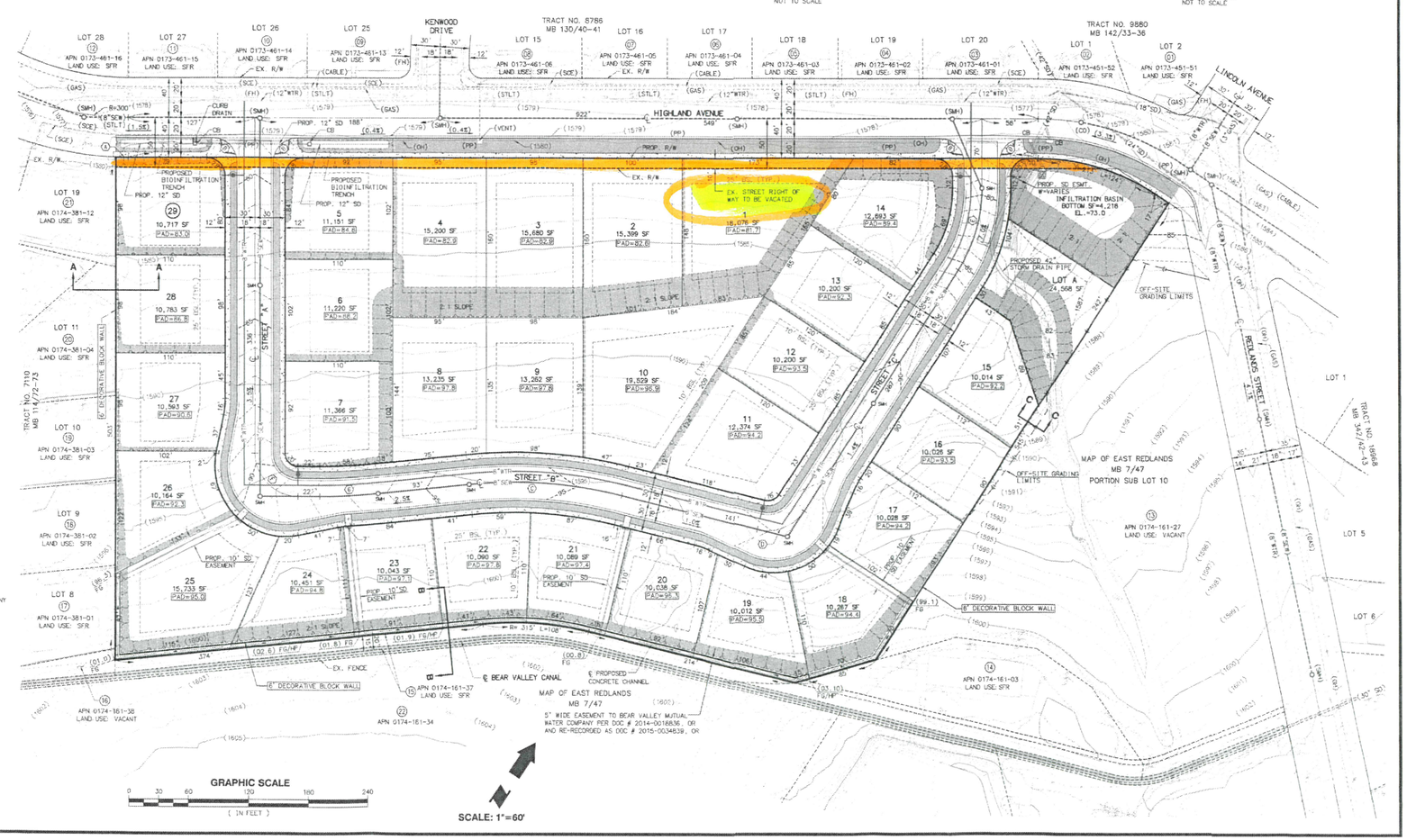


SOIL MEDIA SHALL BE COMPRISED OF 85% MINERAL COMPONENT AND 15% ORGANIC COMPONENT, BY VOLUME. THE MINERAL COMPONENT SHALL BE A CLASS A SANDY LOAM TOPSOIL THAT MEETS THE RANGE SPECIFIED IN THE TABLE BELOW. THE ORGANIC COMPONENT SHALL BE NITROGEN STABILIZED COMPOST, SUCH THAT NITROGEN DOES NOT LEACH FROM THE MEDIA.

MINERAL COMPONENT RANGE REQUIREMENTS	
PERCENT RANGE	COMPONENT
70-80	SAND
15-20	SILT
5-10	CLAY







RESOLUTION NO. 8408

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS DECLARING ITS INTENTION TO VACATE A PORTION OF STREET RIGHT-OF-WAY ON EAST HIGHLAND AVENUE BEGINNING WESTERLY OF REDLANDS STREET, AND ALONG THE ENTIRE FRONTAGE OF TRACT MAP NO. 20065 (APN: 0174-161-25-0000)

WHEREAS, Hicks & Hartwick, Inc., authorized representative, has submitted an application requesting vacation of the excess street right of way along East Highland Avenue that is ten (10) feet wide and 998 feet in length, along the southerly side of East Highland Avenue and approximately 50 feet west of Redlands Street, along the entire frontage of the previously-approved Tract Map No. 20065 (APN: 0174-161-25-0000); and

WHEREAS, the City may vacate all or part of a public street pursuant to Street and Highway Code Section 8300 et. Seq. and, pursuant to Streets and Highways Code Section 8340, the City may for public convenience and necessity reserve and exempt public service easements from a street vacation; and

WHEREAS, the proposed street vacation qualifies for an exemption from environmental review in accordance with the California Environmental Quality Act ("CEQA"), pursuant to Section 15061(b)(3) of the State CEQA Guidelines for projects where there is no possibility of any significant environmental effects; and

WHEREAS, at its meeting on October 11, 2022, the Redlands Planning Commission reviewed the proposal and determined that the proposed street vacation will conform to the City's General Plan including the Connected City chapter; and

WHEREAS, the City Council intends to vacate the excess right-of-way, as more particularly described in Exhibit "A" attached to this resolution.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF REDLANDS AS FOLLOWS:

SECTION 1. The City Council of the City of Redlands hereby declares its intention to vacate the excess street right-of-way along East Highland Avenue that is ten (10) feet wide and 998 feet in length, along the southerly side of East Highland Avenue and approximately 50 feet west of Redlands Street, along the entire frontage of the previously-approved Tract Map No. 20065 (APN: 0174-161-25-0000) described in the legal description contained in Exhibit "A" attached hereto.

SECTION 2. The proposed street vacation of the right-of-way for the previously approved Tract Map No. 20065 is exempt from environmental review in accordance with Section 15061(b)(3) of the State CEQA Guidelines, as there is no possibility of any potentially significant environmental effects.

SECTION 3. The City Council will conduct a public hearing on the proposed street vacation at a regularly schedule public meeting of the City Council on December 20, 2022, beginning at 6:00 p.m., or as soon thereafter as the matter may be heard, to be held in the City Council Chambers located at 35 Cajon Street, Suite 2, Redlands, California 92373.

SECTION 4. The City Clerk shall give notice of the public hearing on the public hearing on the proposed vacation by:

A. Publishing notice in the Redlands Daily Facts, for two successive weeks prior to the hearing; and

B. Posting notices of the proposed street vacation conspicuously at the frontage of Tract Map No. 20065 at least two weeks prior to the date set for the public hearing. The notice shall be posted no more than 300 feet apart, and at least three such notices shall be posted. The notice shall reference the adoption of this Resolution of Intention and shall state the date, time, and place of the street vacation hearing.

ADOPTED, SIGNED AND APPROVED this 15th day of November, 2022.

_____

Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson,
City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, do hereby certify that the foregoing Resolution was duly adopted by the City Council at a regular meeting thereof held on the 15th day of November, 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

EXHIBIT A
LEGAL DESCRIPTION AND PLAT

[Attached]

EXHIBIT "A"

DESCRIPTION OF PROPERTY

THAT PORTION OF BLOCK 35 OF ADDITION NO. 1 TO THE SECOND PRELIMINARY MAP OF REDLANDS, IN THE CITY OF REDLANDS, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER PLAT RECORDED IN BOOK 5 OF MAPS, PAGE 4, AND THAT PORTION OF SUB LOT 10 OF LOTS 9 AND 10, BLOCK 77, RANCHO SAN BERNARDINO, IN THE CITY OF REDLANDS, ACCORDING TO MAP OF REDLANDS, AS PER PLAT RECORDED IN BOOK 7 OF MAPS, PAGE 47, BOTH RECORDS OF SAID COUNTY, DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF LOT 19 OF TRACT NO. 7110 AS PER PLAT RECORDED IN BOOK 114 OF MAPS, PAGES 72 AND 73, RECORDS OF SAID COUNTY;

THENCE SOUTHEASTERLY ALONG THE NORTHEASTERLY LINE OF SAID LOT 19, SOUTH 33°39'32" EAST (RECORDED AS SOUTH 33°40'00" EAST PER SAID TRACT NO. 7110), 10.23 FEET TO A POINT THAT IS 50.00 FEET SOUTHEASTERLY OF THE CENTERLINE TANGENT OF HIGHLAND AVENUE, MEASURED AT RIGHT ANGLES AS SHOWN ON SAID TRACT NO. 7110;

THENCE NORTHEASTERLY, PARALLEL WITH AND 50.00 FEET SOUTHEASTERLY FROM THE CENTERLINE OF SAID HIGHLAND AVENUE, NORTH 56°20'08" EAST, 998.64 FEET TO A POINT OF CUSP WITH A NON-TANGENT CURVE, CONCAVE SOUTHEASTERLY AND HAVING A RADIUS OF 213.00 FEET, THE INITIAL RADIAL OF WHICH BEARS NORTH 16°02'18" WEST;

THENCE SOUTHWESTERLY ALONG SAID CURVE AN ARC DISTANCE OF 65.53 FEET THROUGH A CENTRAL ANGLE OF 17°37'34" TO A POINT THAT IS 40.00 FEET SOUTHEASTERLY, MEASURED AT RIGHT ANGLES, TO THE CENTERLINE OF SAID HIGHLAND AVENUE;

THENCE SOUTHWESTERLY, PARALLEL WITH AND 40.00 FEET SOUTHEASTERLY FROM THE CENTERLINE OF SAID HIGHLAND AVENUE, SOUTH 56°20'08" WEST, 921.56 FEET TO THE BEGINNING OF A CURVE CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 340.00 FEET;

THENCE SOUTHWESTERLY ALONG SAID CURVE AND ARC DISTANCE OF 12.59 FEET THROUGH A CENTRAL ANGLE OF 02°07'18" TO THE **POINT OF BEGINNING**, A RADIAL TO SAID POINT BEARS SOUTH 31°32'34" EAST.

AREA: 9774.49 SQ FT (0.22 AC)

PREPARED BY: Mark S. Whitmer

DATE: 08/10/2022

LICENSED LAND SURVEYOR
MARK S. WHITMER
L.S. No. 5535
STATE OF CALIFORNIA

EXHIBIT "B"

PLAT OF PROPERTY

LINE DATA TABLE		
LINE	BEARING	LENGTH
L1	S33°39'32"E	10.23'

CURVE DATA TABLE

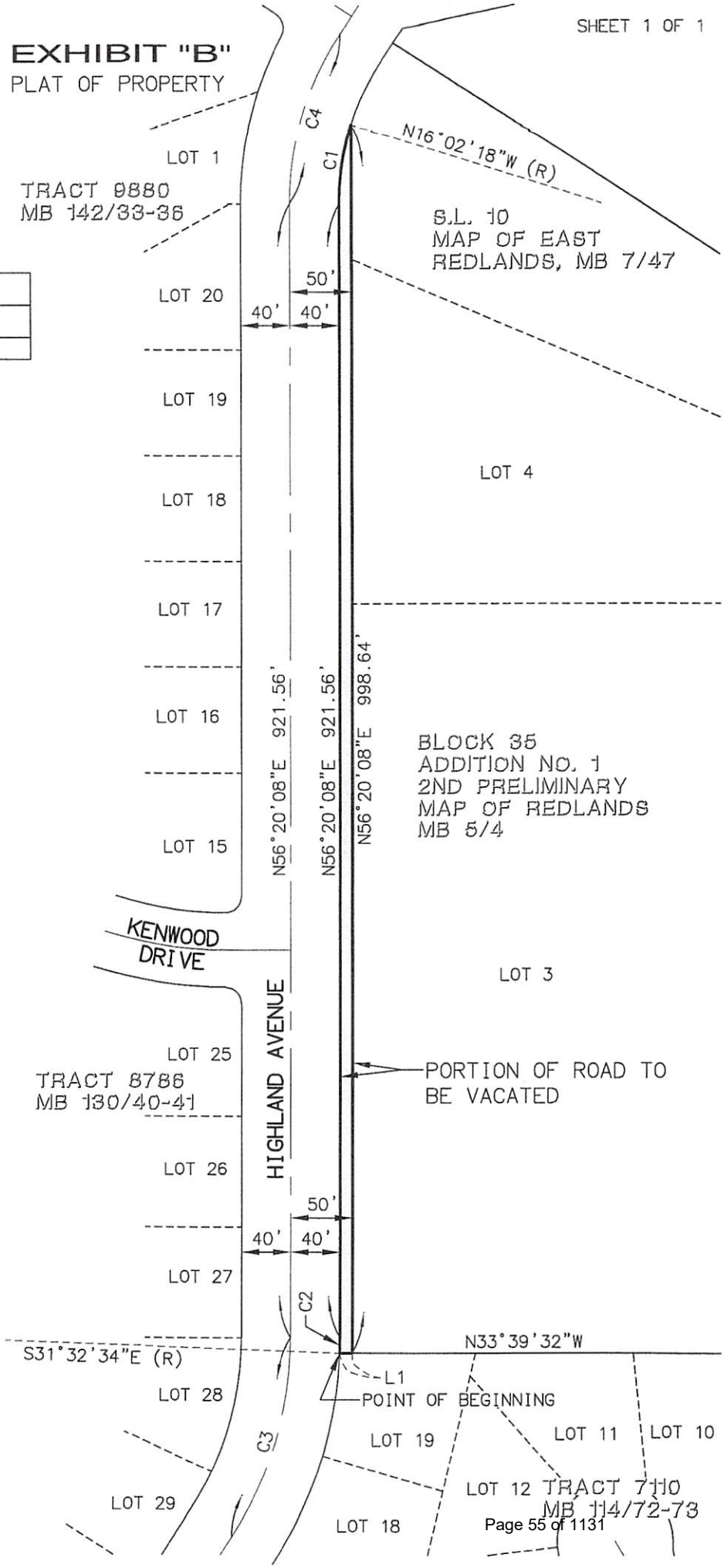
C1 Δ=17°37'34"
R=213.00'
T=33.02'
L=65.53'

C2 Δ=02°07'18"
R=340.00'
T=6.30'
L=12.59'

C3 Δ=32°46'50"
R=300.00'
T=88.24'
L=171.64'

C4 Δ=33°23'47"
R=253.00'
T=75.89'
L=147.47'

SCALE: 1" = 120'



PREPARED BY: Mark S. Whitmer

DATE: 08/10/2022

LICENSED LAND SURVEYOR
MARK S. WHITMER
L.S. No. 5535
STATE OF CALIFORNIA

City Council Meeting **I. 8.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Accept grant award from San Manuel Band of Mission Indians to fund the 2022 Redlands Emergency Services Academy in the amount of $28,000 and authorize an additional appropriation of the same to the Police Department (Police Chief Catren)

MOTION(S):

If City Council determines that staff's recommendation is appropriate, the following motions are provided:

1. I move to accept the grant award from the San Manuel Band of Mission Indians in the amount of $28,000; and

2. I move to authorize an additional appropriation of funds to the Police Department of the same.

RECOMMENDATION:

Staff recommends that the Council accept the grant award from the San Manuel Band of Mission Indians and approve the additional appropriation of funds to the Police Department in the amount of $28,000.

DISCUSSION:

The Redlands Emergency Services Academy (RESA) is a partnership with the Redlands Police Department, Redlands Fire Department, Crafton Hills College, and the University of Redlands to provide graduating high school students with a rigorous, hands-on introduction to public safety careers. The week-long academy gives local students interested in careers in emergency services an opportunity to learn from Redlands police officers and firefighters. Many participants have gone on to careers in both fields.

RESA is funded primarily through grants and donations. The Redlands Police

Department received a generous grant of $28,000 from the San Manuel Band of Mission Indians. These funds are used to pay for the personnel (Police Department/Fire Department) to run the RESA program and to backfill positions that are working at the academy.

ALTERNATIVES:

Do not approve the grant award and supplemental appropriation in the amount of $28,000.

STRATEGIC PLAN:

Not applicable.

SUBMITTED BY:
Christopher R. Catren, Chief of Police

RECOMMENDED BY:
Charles M. Duggan, Jr., City Manager

REVIEWED BY:
Janice McConnell, Assistant City Manager
Danielle Garcia, Management Services/Finance Director

PREPARED BY:
Dominick Povero, Police Sergeant

Fiscal Impact

Fiscal Year:	2022-23
Appropriation Required Y/N:	Yes
Amount:	$28,000
Budgeted Y/N:	No
Account No.:	2002025101P202022
Discussion:	

Attachments

Check
Award Letter
Goals
Recognition Plan
Additional Appropriation

"General Account"

DATE	INVOICE NO	COMMENT	AMOUNT	DISCOUNT	NET AMOUNT
07/13/2022	JS-071322	REDLANDS EMERGENCY SERVICES ACADEMY (RESA)	28,000.00	0.00	28,000.00

CHECK: 934968 08/10/2022 REDLANDS POLICE DEPARTMENT CHECK TOTAL: 28,000.00

ORIGINAL DOCUMENT PRINTED ON CHEMICAL REACTIVE PAPER WITH MICROPRINTED BORDER

San Manuel Band of Mission Indians
"General Account"
26569 COMMUNITY CENTER DRIVE
HIGHLAND, CA 92346
TribalAccountsPayable@sanmanuel-nsn.gov

US Bank
56-503/422

934968

30548 3000

DATE AMOUNT

Void After 90 Days
08/10/2022 **$28,000.00

PAY *Twenty Eight Thousand and 00/100 Dollars*

PAY TO THE ORDER OF
REDLANDS POLICE DEPARTMENT
111 WEST LUGONIA AVE.
REDLANDS CA 92374

Lynn R. Valbuena

AUTHORIZED SIGNATURE

Details on back. Security Features Included.

THIS DOCUMENT CONTAINS HEAT SENSITIVE INK. TOUCH OR PRESS HERE - RED IMAGE DISAPPEARS WITH HEAT.

⑈00934968⑈ ⑆042205038⑆ 1301202769 23⑈

October 15, 2022

Mr. Chris Mead
Police Officer
Redlands Police Department
30 Cajon Street
Redlands, CA 92373

Re: Charitable Donation

Dear Mr. Mead,

On behalf of San Manuel Band of Mission Indians ("**Tribe**"), we want to thank you and your organization for the programs and services you provide to our community.

We are pleased to inform you that we approved a donation in the amount of $28,000.00 to support your efforts. By accepting this charitable donation ("**Grant**") from Tribe, Redlands Police Department ("**Grantee**") agrees to abide by the following terms and conditions:

I. GRANTEE'S STATUS. Grantee warrants and represents that it is a public school, Tribal or other government entity, or tax-exempt organization under Section 501(c) (3) of the Internal Revenue Code of 1986, as amended (the "**Code**"), and is not a private foundation as defined in Section 509(a) of the Code. Grantee has provided Tribe with a copy of IRS determination letter(s) evidencing its status as an eligible recipient and warrants and represents that such determination letter(s) are currently in full force and effect. Regardless of Grantee's current tax status, Grantee will notify Tribe immediately of any actual or proposed change in tax status.

II. PURPOSE OF GRANT. Tribe's Grant is to provide funding in support of Redlands Emergency Services Academy (RESA) (hereinafter "**Grant Project**"). The Grant is made only for specific charitable purposes described in this letter and may not be used for any other purpose without prior written approval from Tribe.

III. GOALS, OBJECTIVES, OUTCOMES AND EVALUATIONS OF GRANT PROJECT.

1. Goals & Objectives. Grantee shall undertake the following within [twelve] months following the date of this letter ("**Execution Period**") unless Tribe agrees in writing to alternative timelines: (See Attachment A: Goals, Objectives, Outcomes and Evaluations of Grant Project, incorporated herein by reference).

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Office: (909) 864-8933 • FAX: (909) 864-3370

2. Outcomes & Evaluation. The Outcomes will be evaluated and reported in sum at the completion of the Execution Period of this Agreement: (See Attachment A: Goals, Objectives, Outcomes and Evaluations of Grant Project, incorporated herein by reference).

IV. AMOUNT AND PAYMENT OF GRANT. Full payment of Twenty-Eight Thousand Dollars and No Cents ($28,000.00) is to provide funding in support of Grant Project and will be used as follows: (See Attachment B: San Manuel Grant Project Budget, incorporated herein by reference).

V. PERIOD OF GRANT. The Grant will be applied for projects executed during the 12-month period following this date of this letter unless otherwise agreed upon in writing by Tribe. No applications for new support will be accepted from Grantee until the conclusion of the Execution Period in compliance with Section III.1 above, unless the Grant Project is event/date specific.

VI. EXPENDITURE OF GRANT FUNDS

1. Use of Funds. Grantee will spend the Grant only for the purposes described in this letter.
2. Prohibited Uses. Grantee will not use any of the Grant in a manner inconsistent with Section 501(c)(3) of the Code, including:
    a. Carrying on propaganda, or otherwise attempting to, influence legislation;
    b. Influencing the outcome of any specific public election;
    c. Carrying on, directly or indirectly, any voter registration drive;
    d. Inducing or encouraging violations of law or public policy, or
    e. Causing any private inurement or improper private benefit to occur.
3. Payment of Funds to Related Parties of Tribe. No part of this Grant may be paid to any director, officer, employee or citizen (or their family members) of Tribe for any purpose.

VII. RECORDS, AUDITS, SITE VISITS. The Grant will be accounted for separately in Grantee's books and records. A systematic accounting record shall be kept by Grantee of the receipt and disbursement of the Grant. Grantee will retain original substantiating documents related to restricted Grant expenditures and make these records available for Tribe's review upon request. Grantee will be responsible for maintaining adequate financial records pertaining to the Grant for a minimum of three (3) years after completion of the Grant Project. Tribe, or its designated representative, reserves the right to conduct a site visit and/or audit Grantee's books and records relating to the expenditure of the Grant.

VIII. REPORTS. Grantee will submit a written semi-annul summative and final written report. Such written reports must be signed by an officer of Grantee and shall conform to the report template provided by Tribe's Strategic Philanthropy Department. **Please do not complete or submit a report until you have received the report notification from the Strategic Philanthropy Department.** Tribe shall send such templates and notice of the report's due date on the six-month anniversary of the Effective Date and upon completion of the Execution Period. This template will be emailed to the Primary Contact listed in your grant application. Should

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this contact information change during the course of the Execution Period, please notify our office immediately.

IX. LICENSING AND CREDENTIALS. Grantee will maintain, in full force and effect, all required governmental or professional licenses and credentials for itself, its facilities, and for its employees and all other persons engaged in work in conjunction with the Grant Project.

X. MANAGEMENT AND ORGANIZATIONAL CHANGES. Grantee will provide immediate written notice to Tribe if significant changes or events occur during the Execution Period which could potentially impact the progress or outcome of the Grant Project, including, without limitation, changes in Grantee's management personnel or losses of funding from any other sources.

XI. GRANT PROJECT BUDGET CHANGES. Grantee must report to Tribe any change, including but not limited to, changes in expenses, funding, personnel, materials, service area or population, or timelines, which impact at least 10% of the reported budget and use of funds for the Grant Project detailed in Attachment B.

XII. TRIBE LETTERHEAD AND LOGO.

1. If Tribe consents in writing to Grantee's use of Tribe's name or logo (collectively, its "Marks"), Grantee acknowledges and agrees that Tribe is the owner of all right, title and interest in and to Tribe's Marks and that Grantee's use of the Marks pursuant to this letter inures to the benefit of Tribe. Such written consent by Tribe, if actually given, would constitute a non-exclusive and non-transferable license, without the right to sublicense, to use the Marks solely in connection with providing recognition of the Grant pursuant to this letter. Grantee will have no rights in or to the Marks, except as expressly granted herein. Tribe expressly reserves to itself all rights in and to the Marks not expressly granted to Grantee pursuant to this letter. The manner and use of the Marks will comply with all federal and state laws pertaining to trade names, trademarks and service marks in force at any time and will clearly indicate Tribe's ownership of the Marks as requested and approved by Tribe.

2. All uses of the Marks by Grantee are subject to the prior written approval of Tribe through its Executive Director of the Office of Public Affairs. Grantee will submit to Tribe for approval, at least ten (10) business days prior to its intended first use, all materials which contain the Marks (whether in print media, direct mail, television, radio, internet, email, billboard or in any other form, media or channel). Tribe will have the right to review and approve any copy containing reference to Tribe or including the Marks prior to its use by Grantee. Tribe will use its reasonable efforts to promptly review materials sent by Grantee for approval and will not unreasonably withhold or delay its approval. In no event will Grantee make any unapproved changes to the Marks.

XIII. TRIBE'S PUBLICITY OF GRANT PROJECT. Grantee hereby grants to Tribe an irrevocable, non-exclusive license to use Grantee's name and marks in publicity materials in all forms of media pertaining to Grantee's organization, the Grant Project, and any results or outcomes of the Grant, for internal presentations and external dissemination to the public.

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XIIV. CONFIDENTIALITY. The terms of the Grant are confidential. Grantee must seek Tribe's prior written approval before sharing any terms of the Grant with third parties who do not have a need to know in order to further the purpose of the Grant Project.

XV. SELECTION OF SUBGRANTEES. With regard to the selection of any subgrantees to carry out the purposes of this Grant, Grantee retains full discretion and control over the selection process, acting completely independently of Tribe. There is no agreement, written or oral, by which Tribe may cause Grantee to choose any particular subgrantee.

XVI. NO AGENCY. Grantee is solely responsible for all activities supported by the Grant, the content of any product created with the Grant, and the manner in which any such product may be disseminated. This letter will not create any agency relationship, partnership, or joint venture between the parties, and Grantee will make no such representation to anyone.

XVII. NO WAIVERS. The failure of Tribe to exercise any of its rights hereunder will not be deemed to be a waiver of such rights.

XVIII. NO FURTHER OBLIGATIONS BY TRIBE. The Grant is made with the understanding that Tribe has no obligation to provide other or additional support or grants to Grantee.

XIX. REMEDIES. If Tribe determines, in its reasonable discretion, that Grantee has substantially violated or failed to carry out any provision hereof , including but not limited to failure to submit reports when due, Tribe may, in addition to any other legal remedies it may have, refuse to make any further grant payments to Grantee hereunder or any other grant agreement, and Tribe may demand the return of all or part of the Grant funds not properly spent or committed to third parties, which Grantee will immediately repay to Tribe. Tribe may also avail itself of any other remedies available at law.

XX. WAIVER OF CLAIMS AND INDEMNIFICATION. Grantee waives any and all claims and recourse against Tribe, including the right of contribution for loss or damages to persons or property arising from, growing out of, or in any way connected with or incidental to fulfillment of the terms and conditions specified herein. Additionally, Grantee will indemnify, defend, protect and hold Tribe and its officers, managers, members, employees, agents and representatives, harmless from any cost, expense, claim, demand, liability and/or damage, including reasonable attorney's fees and costs, by any third party arising out of or in connection with, in whole or in part, performance of Tribe's obligations pursuant to this letter.

XXI. GOVERNING LAW/ JURISDICTION. This Agreement shall be governed by applicable tribal, federal, and State of California law, in that order, without giving effect to any choice or conflict of law provision or rule that would cause the application of the laws of any other jurisdiction. Nothing in this Agreement shall be construed as a waiver of Tribe's immunity to unconsented suit.

XXII. KNOWING ASSUMPTION OF OBLIGATIONS. Grantee acknowledges that it understands its obligations imposed by this Agreement.

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Office: (909) 864-8933 • FAX: (909) 864-3370

XXIII. TERRORIST ACTIVITY. Grantee represents and warrants that it does not support or conduct, directly or indirectly, violence or terrorist activity of any kind.

XIV. ENTIRE AGREEMENT. This letter is the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior and contemporaneous oral, written and other agreements between the parties. Nothing contained herein will be construed as a waiver of Tribe's immunity from unconsented suit.

As noted, our charitable giving guidelines require that we receive a final report from your organization. At the end of the Execution Period, you will receive notification detailing the instructions for submitting your report. If you have any questions regarding the Grant, or do not receive this notification, please contact your assigned Program Officer, Melisa Castro, at (909) 864-8933.

Tribe is pleased to have the opportunity to support your valuable work. **Your check will be mailed to you by our Accounting Department, please allow 2 – 4 weeks for processing.** We extend our best wishes to you for continued success and look forward to hearing about your accomplishments in the coming year.

Sincerely,

Patrick Dupont
Vice President of Finance and Accounting

PD: sp

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Office: (909) 864-8933 • FAX: (909) 864-3370

Attachment A

Goals, Objectives, Outcomes and Evaluations

Name of Organization: Redlands Police Department			
Program/ Project Name:Redlands Emergency Services Academy (RESA)			
☒Grantee shall use its internal evaluation mechanisms to determine the effectiveness of the Grant Project implementation ☐Grantee shall use an external evaluation process			
Project Category (if requested by Program Officer):			
GOAL	**OBJECTIVE**	**OUTCOME**	**EVALUATION**
Redlands Police Department will engage high school students in pursuing a career in Public Safety, by fostering a pool of local recruits for the Redlands Fire and Police Departments through their RESA program	• Grantee will develop and implement sessions throughout the week-long academy that support a variety of Public Safety careers (e.g., firefighting, EMS, paramedic, police, etc.)	• Cadets will participate daily in Fire and/Police classroom training and practical application for all sessions • All cadets who complete the program relate to staff members to assist with pursuing post-secondary education or employment opportunities (e.g., letters of recommendation, etc.)	• Grantee will conduct an annual survey on all the former student's career and educational progress
Redlands Police Department will serve as a mentor to	• Grantee will collaborate with Redlands Unified School District, Crafton Hills College	• All students/cadets will receive education and career planning	• RESA staff will continue to interact with cadets after the program and

advise, encourage, and guide students through post-secondary training and programs, or post-secondary education	and University of Redlands to provide one-on-one counseling to students and guide them through the admissions process	information prior to and during the academy session • RUSD career teacher will meet with students and assist with any questions/applications for all post-secondary choices	provide guidance in their selected career
	•	• •	•
	•	•	
	•	•	
	•	•	

Attachment C

Recognition

Name of Organization: City of Redlands		
Program/Project Name: **Redlands Emergency Services Academy**		
RECOGNITION TYPE	**ACTIVITY DESCRIPTION**	**DATE OR DATE RANGE**
Media Coverage	All media coverage and timing of announcements for the Grant Project must be mutually agreed upon by Tribe and Grantee. Coverage will include recognition of the grant purpose and where applicable share the social, economic, community and human benefits of the Grant Project. These opportunities may include Grant Announcements, Press Releases, Reports, Newsletters, Annual Reports, and Publications, etc. Newsworthy opportunities will include: A. Grant Announcement B. Press Release	A. September 2022 B. July 2022
Events (if requested by Tribe)	All events for the Grant Project must be mutually agreed upon by Tribe and Grantee. Events during the course of the Grant may provide opportunities to celebrate the Grant Project. Each event will offer an opportunity to invite members of the Tribe, community leaders, and media to celebrate different project milestones. Tribe representatives will be presented a speaking opportunity at each event. These events may include: A. Graduation Ceremony B. Grant Approval	A. July 2022 B. September 2022

Social Media	All social media for the Grant Project must be mutually agreed upon by Tribe and Grantee. Social Media will provide opportunities to expand distribution of communications. These mechanisms will be used to provide additional information about the Grant Project and may support broader media events or provide interim progress updates and stories. These opportunities may include, Facebook, Twitter, Instagram, Website, YouTube Channel, etc.: A. Facebook B. Instagram	A. July 2022 B. July 2022
Video	All videos for the Grant Project must be mutually agreed upon by Tribe and Grantee. Videos and publications will be utilized to communicate newsworthy events and where applicable share the social, economic, community and human benefit of the Grant Project. These may include, Documentaries, YouTube Channel, Public Education Awareness Campaigns, Commercials, Digital Annual Reports, etc.: A. N/A	A. N/A
Other	All other recognition opportunities for the Grant Project must be mutually agreed upon by Tribe and Grantee. A. N/A	A. N/A

CITY OF REDLANDS
REQUEST FOR ADDITIONAL APPROPRIATION

DATE OF REQUEST: 09/14/2022

FINANCE USE ONLY
TRANSACTION NO:
ACCOUNTING PERIOD:

An additional appropriation is hereby requested as follows:

Department: Police

EXPENDITURE APPROPRIATION INCREASE (if applicable)				
Account Description	**Orgkey**	**Object Code**	**Job Ledger (If applicable)**	**Amount**
Overtime Salaries	200202	5101	P202022	28,000.00
				$ 28,000.00 -

REVENUE APPROPRIATION INCREASE (if applicable)				
Account Description	**Orgkey**	**Object Code**	**Job Ledger (If applicable)**	**Amount**
Other Grants	200202	4410	P202022	28,000.00
				$ 28,000.00 -

JUSTIFICATION: This donation grant is to be used to provide funding support of the Redlands Emergency Services Academy (RESA) for the cost of fire and police personnel overtime for time worked for RESA 2022.

Requested By: _____
Department Head

Recommended By Finance Director:

Yes _____ No _____ Signed _____

Comments: _____

Recommended: _____
City Manager

Approved by City Council:

Date: _____

Signed: _____
City Clerk

City Council Meeting **I. 9.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Approve the two-year contract with Principal Insurance providing vision services for eligible bargaining units (Assistant City Manager McConnell)

MOTION(S):

If the City Council determines that staff's recommendation is appropriate, the following motion is provided:

I move to approve the two-year contract with Principal Insurance providing vision services for eligible bargaining units.

RECOMMENDATION:

Staff recommends that City Council approve the two-year contract with Principal Insurance for the provision of vision insurance for eligible bargaining units.

DISCUSSION:

The City currently provides vision care for eligible employees through Medical Eye Services Vision Plan (MES). However, this plan is expiring on December 31, 2022 and MES will no longer provide services after the expiration. The City's benefit broker, Alliant, marketed the vision plan and negotiated with carriers to provide the best renewal rate. After review of the quotes provided by Alliant, staff recommends contracting with Principal Insurance for vision coverage. The rate is a 28.4% increase over the previous year. However, this plan provides increased benefits for lenses and contact lenses every 12 months, as opposed to 24 months and an increased frame allowance. This plan is an equivalent plan to MES as required by the Memorandums of Understanding with the impacted bargaining units. The proposed 2-year contract will guarantee a rate lock through December 31, 2024.

ALTERNATIVES:

N/A

STRATEGIC PLAN:

N/A

SUBMITTED BY:
Janice McConnell, Assistant City Manager

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Tommi Ng, Assistant Director, HR/Risk Management
Danielle Garcia, Management Services/Finance Director

PREPARED BY:
Liz Marin, HR Manager

Fiscal Impact

Fiscal Year:	2022/23
Revenue Generating:	No
Appropriation Required Y/N:	No
Budgeted Y/N:	Yes

Discussion:

The increased cost to the City for vision premiums for the 2023 calendar year totals approximately $7,285. The vision premiums are included in the FY 22/23 budget.

Attachments

Principal Vision Proposal

Group insurance benefits

Count on Principal for your employee benefits.

Presented to
CITY OF REDLANDS

Prepared by
BRIAN W TASTOR

Presented by
ALLIANT INSURANCE SERVICES INC

Effective date
January 1, 2023

Solutions
Vision

The information in this proposal explains your vision coverage.

Rates

Presented to: CITY OF REDLANDS
Effective date: January 1, 2023

Vision				
	Lives	**Monthly rate**	**Estimated monthly cost**	**Estimated annual cost**
Employee	16	$6.15	$98.40	$1,180.80
Employee & spouse	8	$14.83	$118.64	$1,423.68
Employee & child(ren)	8	$14.83	$118.64	$1,423.68
Family	95	$25.32	$2,405.40	$28,864.80
Total	**127**	**N/A**	**$2,741.08**	**$32,892.96**

Rate guarantee: two years

Rating assumptions

Presented to: CITY OF REDLANDS
Effective date: January 1, 2023

Rating assumptions These rates are based on the following:
California as the contract state. If you have employees located in other states, we may apply benefits based on those states' provisions, when applicable.
An effective date of January 1, 2023. Suggested premiums and benefits are provided for illustration purposes only. Acceptance of your group, the final premium rates and actual benefits cannot be offered to you until all necessary information about your group has been received and reviewed by home office underwriters of Principal Life and approved by an officer of Principal Life. Rates will be recalculated based on actual enrollment under the policy and are subject to change if the number of employees on the effective date varies by more than 15% from the sold proposal. Changes in assumptions, group demographics, policy design and policy effective date may also affect your rates. Final rates will apply for the period of time specified in the contract. Rates may increase on renewal in accordance with the terms of the policy.
There are limitations, restrictions and exclusions in this policy. There are also certain restrictions involving payment of premium, termination, fraud, eligibility and participation. Final rates are dependent on entering into an insurance contract where all limitations, exclusions, and restrictions are taken into consideration.
Vision commissions are paid using a flat 10%.

Vision

Presented to: CITY OF REDLANDS
Effective date: January 1, 2023

Vision for police or fire members		
VSP choice network		
Covered charges	**Benefit**	**Frequency**
Exams	$0 copay	1 per 12 months
Prescription glasses	$10 copay	
Lenses	Single vision, lined bifocal, lined trifocal, and lenticular lenses; polycarbonate lenses for dependent children under age 18	1 pair per 12 months
Frames*	$130 allowance for a wide selection of frames; 20% off amount over allowance[1]	1 set per 24 months
Elective contacts	Up to $60 copay for standard and premium elective contact lens exams (fitting and evaluation)	1 per 12 months
	$130 allowance for elective contacts	Instead of lens and frames benefit
Necessary contacts[2]	$10 copay	1 per 12 months
	Covered in full for members who have specific conditions. Contact lenses can be chosen instead of glasses.	Instead of lens and frames benefit
Lens enhancements[1]	$0 copay standard progressive lenses Most other popular options are covered after a copay, saving members an average of 30%. Members should see their doctor for special pricing on additional lens enhancements.	1 per 12 months
Additional savings[1]	Savings on laser vision correction and additional pairs of prescription glasses and non-prescription sunglasses.	

Non-network providers		
Covered charges	**Benefit[3]**	**Frequency**
Vision exams	Up to $45	1 per 12 months
Single vision lenses	Up to $30	1 pair per 12 months
Lined bifocal lenses	Up to $50	1 pair per 12 months
Lined trifocal lenses	Up to $65	1 pair per 12 months
Lenticular lenses	Up to $100	1 pair per 12 months
Frames	Up to $70	1 set per 24 months
Elective contacts	Up to $105	1 per 12 months Instead of lens and frame benefits
Necessary contacts[2]	Up to $210	1 per 12 months Instead of lens and frame benefits

[1] Based on applicable laws; benefit may vary by doctor location. Savings may not apply at participating retail chains.
[2] Prescribed to correct extreme visual problems that cannot be corrected with regular lenses.
[3] The benefit amount is the lesser of the maximum payment limit or billed amount minus the applicable copay.
*VSP has agreements established with some participating retail chain providers that may also provide benefits for this covered service. Up to a $70 allowance is given for a wide selection of frames from Costco or Walmart/Sam's Club. Not all providers at participating retail chains are in-network for exam services. Please talk to your provider or contact VSP customer care for further details.

Highlights	
Participation	50% employee participation assumed
Eligibility	**Employee:** Eligible Employees include all active, full-time employees living in the United States (except part-time, seasonal, temporary or contract employees) who work at least 30 hours per week. Employees must be enrolled with coverage before it can be offered to their dependents. **Dependent:** Eligible dependents include the employee's spouse and children. Additional eligibility requirements may apply.
Open enrollment period	Any employee or dependent that didn't enroll within 31 days of being eligible can only enroll during the open enrollment period.
Coordination of benefits	Benefits from two or more carriers are limited up to 100% of the claimant's covered expenses.

Limitations	The proposed policy contains restrictions and limitations. Before making a purchase decision, review the following limitations and resolve any questions. The following limitations and restrictions are applied as required by state law or as otherwise described in the group policy. No benefits will be paid for: visual analysis or vision aids that are not medically necessary / services and/or materials not specifically included in the benefit schedule / plano lenses / two pairs of glasses instead of bifocals / replacement of lenses, frames and/or contact lenses furnished under this plan which are lost or damaged / orthoptics, vision training or supplemental testing / medical or surgical treatment of the eyes / contact lens insurance policies or service agreements / refitting of contact lenses after the initial fitting period / contact lens modification, polishing or cleaning, local state and/or federal taxes, except where required by law. Benefits will not be paid for any vision care expense for: which proof is submitted by a person who is part of the member's or dependent's immediate family / vision aids provided outside the United States.

VSP is not a member of the Principal Financial Group.

Discounts and services

Presented to: CITY OF REDLANDS
Effective date: January 1, 2023

Discounts and services	
Laser vision correction	Employees, their spouses and dependent children save $800 with featured providers Lasik***Plus***, TLC Laser Eye Centers or The LASIK Vision Institute or receive 15% off standard pricing or 5% off promotional pricing on LASIK through the National Lasik Network's administered by LCA Vision.
Hearing aid program	Through Start Hearing, employees and their families are eligible for up to 48% off hearing aids.

These discounts are not insurance.

The discounts and services listed here are available to members, and/or their dependents or beneficiaries, with group coverage underwritten by or with administrative services provided by Principal Life Insurance Company. The discounts and services are not a part of the policy or contract and may be changed or discontinued at any time. Although Principal has arranged to make these programs available to you, the third party providers are solely responsible for their products and services.

Services & general provisions

Presented to: CITY OF REDLANDS
Effective date: January 1, 2023

Our services	
Online benefit administration	eService offers free administration and management of all group insurance for employers and employees. Employers can add or remove employees, view and update employee information, pay premiums and more. Employees can view statuses of claims, confirm covered dependents and more.

General provisions	
Renewing your coverage	Your insurance runs annually or based on your rate guarantee period, but no less than annually, unless the policy terminates before that date. While the insurance is in force and subject to its termination provisions, you may renew at the applicable premium rates in effect on your anniversary.
Termination and renewability of your coverage	The insurance is renewable at your option. Principal Life has the right to nonrenew or terminate the insurance if: you fail to pay premium / fraud or misrepresentation occurs / your company relocates to a state where Principal Life does not offer group coverage(s) provided by your policy / your company no longer meets the participation or contribution rules / you no longer qualify as an eligible business or group / we give you advance notice of termination as required by your state.
Policy changes	Principal Life has the right to modify coverage under the group policy at any time to meet legal requirements or to ensure consistent application of policy provisions. In addition, you may request coverage changes, subject to approval by Principal Life.
Federal and state laws	Various federal and state laws may affect the rights of insureds to continue coverage. The Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA), the Family Medical Leave Act (FMLA) and the Uniform Services Employment and Reemployment Rights Act of 1994 (USERRA) are examples. As an employer, you are responsible for meeting the obligations imposed by any federal and state continuation laws. However, we design and administer our policies to comply.

This proposal is a general description. It is not a policy and does not modify or change the provisions of any policy or rider. If there is a discrepancy, the policy is the final arbiter of the coverage. Policy definitions and provisions may vary by state, read your policy carefully for the exact definitions and provisions. Policy limitations and exclusions apply. Benefits are limited when living outside the United States. Insurance issued by Principal Life Insurance Company, a member of the Principal Financial Group®, Des Moines, IA 50392.

Principal® , Principal Financial Group® , and Principal and the logomark design are registered trademarks of Principal Financial Services, Inc., a Principal Financial Group company, in the United States and are trademarks and service marks of Principal Financial Services, Inc., in various countries around the world.

Compensation information

Presented to: CITY OF REDLANDS
Effective date: January 1, 2023

Disclosure of compensation information

As a result of this sale, I (or my firm) may receive compensation (cash or otherwise) that is based in part on factors such as total deposits, assets or premium volume and persistency or profitability of the business I sell. The cost of this compensation may be directly or indirectly reflected in the premium or fee for this product. I may receive this compensation from the insurer and/or entities through which I place business.

Please contact me if you have any questions about this compensation.

Note: Customer's signature is required only when the producer is also receiving compensation directly from the customer. A copy of the signed document should be given to the customer. The broker should keep the original in the client file.

I acknowledge paying compensation directly to the producer and receipt of the above information before purchasing the contract under consideration.

Customer signature Date

cc: Client File

City Council Meeting **I. 10.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Approve the two-year contract renewal with Principal Insurance providing Dental and Life Insurance coverage for all City employees and their eligible dependents (Assistant City Manager McConnell)

MOTION(S):

If the City Council determines that staff's recommendation is appropriate, the following motion is provided:

I move to approve a two-year contract renewal with Principal Insurance providing Dental and Life Insurance coverage for all City employees and their eligible dependents.

RECOMMENDATION:

Staff recommends Council approve a two-year contract renewal providing dental and life insurance coverage to City employees and eligible dependents through Principal Insurance, for the 24-month term of January 1, 2023 through December 31, 2024.

DISCUSSION:

The City currently contracts with Principal Dental and California Dental Network for DPO and DMO service plans. Utilization of the combination of these two types of plans provides the employees with options for services and provides additional savings to the City in the overall premium structure. The City also has coverage for group and voluntary life insurance through Principal Insurance.

Each year the City's Benefit Broker, Alliant, negotiates with the carriers to provide the best renewal rate. This year, Principal Insurance has quoted us a rate relief, resulting in a 4.5% decrease for Dental, 13.5% decrease for Basic Life AD&D, and a rate pass for Voluntary Life/AD&D through December 31, 2024.

ALTERNATIVES:

N/A

STRATEGIC PLAN:

N/A

SUBMITTED BY:
Janice McConnell, Assistant City Manager

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Tommi Ng, Assistant Director, HR/Risk Management
Danielle Garcia, Management Services/Finance Director

PREPARED BY:
Liz Marin, HR Manager

Fiscal Impact

Fiscal Year:	2022/23
Revenue Generating:	No
Appropriation Required Y/N:	No

Discussion:

This renewal will result in no increase for Dental and Voluntary Life/AD&D for the period of January 1, 2023 through December 31, 2024. The dental premiums are already included in the FY 22/23 budget.

Attachments

Renewal Letter

City of Redlands: 1006942/1016857

January 1, 2023 Renewal:

At Principal Life Insurance Company, we work hard to offer employers competitive benefit solutions back by exception service and support. Your business is very important to us, and we look forward to remaining your carrier of choice in the year ahead.

Your coverage will renew on your policy anniversary date of 01/01/2023. Therefore, we have worked to provide the following renewal offer for you:

Coverage	*Renewal*
Dental	-4.5%
Basic Life AD&D	-13.5%
Voluntary Term Life	Rate Pass

**Rate Guarantees for 24 months

How to Renew Coverage:
To renew coverage, your payment of the premium due is acceptance of your rates. We look forward to continuing our relationship with you and fulfilling your needs in the coming year.

Questions:
To inquire about this renewal, explore alternate benefit designs or learn more about other available coverage(s) contact your Relationship Manager, Sean Blenkle.

Sean C. Blenkle
Relationship Manager
Principal Financial Group
575 Anton Ste 980
Costa Mesa, CA 92626

Cell: 949-566-3089
Email: Blenkle.Sean@Principal.com

RATES:

	% Change	***Current Rates***	***Renewal Rates***
Dental PPO	**-4.5%**	Dental Rates	
EE		$40.82	$38.98
EE+1		$78.15	$74.63
EE+Fam		$127.37	$121.64

Group Term Life/ADD	***-13.5%***	Basic Life Rates	
Life Rate		$0.168	$0.145
ADD Rate		$0.040	$0.040

VTL	**0.0%**	**VTL Rates**	
		Non-Smoker	**Smoker**
0 - 29		$0.065	$0.105
30 - 34		$0.065	$0.125
35 - 39		$0.085	$0.165
40 - 44		$0.145	$0.285
45 - 49		$0.225	$0.475
50 - 54		$0.355	$0.765
55 - 59		$0.555	$1.155
60 - 64		$0.655	$1.245
65 - 69		$1.285	$1.245
70 - 119		$1.285	$2.265
ADD RATE	*0%*	*$0.025*	*$0.025*

City Council Meeting **I. 11.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Adopt Resolution No. 8405 appointing Small Claims Court Representatives to act for the City of Redlands and on the City's behalf and Rescinding Resolution No.8227 (Assistant City Manager McConnell)

MOTION(S):

If the City Council determines that staff's recommendation is appropriate, the following motion is provided:

I move to approve Resolution No. 8405.

RECOMMENDATION:

Staff recommends the City Council approve Resolution No. 8405 appointing Small Claims Court Representatives to act for the City of Redlands and on the City's behalf and rescind Resolution No. 8227.

DISCUSSION:

The purpose of this Resolution is to address the staffing changes resulting from employee turnover, staff re-organization and duty assignments, and the assignment of City Representatives for Small Claims appearances.

The following persons will be authorized to represent and appear on behalf of the City of Redlands in small claims actions filed for, or against, the City of Redlands in Small Claims Court: Tommi Ng, Assistant Director, Human Resource/Risk Management, Beatris Ordaz, Human Resource Manager; Christina Loera, Human Resource Analyst, Danielle Garcia, Management Services/Finance Director, James Garland, Asst. Finance Director, and/or Aimee Hoover, Revenue Supervisor.

ALTERNATIVES:
N/A

STRATEGIC PLAN:
N/A

SUBMITTED BY:
Janice McConnell, Assistant City Manager

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager

PREPARED BY:
Tommi Ng, Assistant Director, HR/Risk Management

Fiscal Impact

Discussion:
No fiscal impact.

Attachments

Reso 8405 Small Claims Representative

RESOLUTION NO. 8405

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS APPOINTING SMALL CLAIMS COURT REPRESENTATIVES AND RESCINDING RESOLUTION NO. 8227

WHEREAS, the Small Claims Division of San Bernardino County Superior Court requires the City to designate a representative to act for the City and in the City's behalf in Small Claims Court;

NOW, THEREFORE, be it resolved by the City Council of the City of Redlands as follows:

Section 1. Tommi Ng, Assistant Director, HR/Risk Management; Beatris Ordaz, HR Manager; Christina Loera, Human Resource Analyst; Danielle Garcia, Management Services/Finance Director; James Garland, Assistant Finance Director; and Aimee Hoover, Revenue Supervisor; are hereby designated and authorized to represent and appear on behalf of the City of Redlands in the lawful process of any and all small claims actions filed for, or against, the City of Redlands in Small Claims Court. Such persons are not employed solely for the purpose of representing the City.

Section 2. Resolution No. 8227 of the City Council of the City of Redlands is hereby rescinded.

ADOPTED, SIGNED AND APPROVED this 15th day of November, 2022.

_____
Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, hereby certify that the foregoing resolution was duly adopted by the City Council at a regular meeting thereof, held on the 15th day of November, 2022 by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

City Council Meeting **I. 12.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Adopt Resolution No. 8385 amending the City's Water Efficiency Rebate Program, the additional appropriation of $50,000 from the Water Fund, and determine that adoption of this resolution is exempt from environmental review in accordance with Section 15061(B)(3) of the State's guidelines implementing the California Environmental Quality Act (Municipal Utilities and Engineering Director Harris)

MOTION(S):

If City Council determines the staff recommendation is appropriate, the following motions are provided:

1. I move that City Council determine adoption of Resolution No. 8385 is exempt from environmental review in accordance with Section 15061(B)(3) of the State guidelines implementing the California Environmental Quality Act; and

2. I move City Council approve of the additional appropriation of $50,000 from the Water Fund; and

3. I move that City Council adopt Resolution No. 8385.

RECOMMENDATION:

Staff recommends that the City Council determine adoption of Resolution No. 8385 is exempt from environmental review in accordance with Section 15061(B)(3) of the State guidelines implementing the California Environmental Quality Act, approve an additional appropriation of $50,000 from the Water Fund, and approve Resolution No. 8385 amending the City's Water Efficiency Rebate Program.

DISCUSSION:

Pursuant to Governor Newsom's March 28, 2022 Executive Order, the California Water Resources Control Board (“Water Board”) recently adopted an emergency water conservation regulation that bans the use of potable water irrigation of non-functional turf at commercial, industrial, and institutional properties. In order to remain compliant with this emergency water conservation regulation and to encourage additional water conservation within the Redlands water service area, staff recommends City Council approval of Resolution No. 8385, which rescinds Resolution No. 7655 and expands the water conservation rebate program.

Resolution No. 8385 increases the cap for both the Drought Tolerant Landscape Conversion and the Irrigation-less Groundcover Conversion rebates. The current Drought Tolerant Landscape Conversion rebate is $0.61 per square foot with a cap of $500. Staff recommends increasing this rebate to $1 per square foot with a cap of $1,000. The current Synthetic/Irrigation-less Groundcover Conversion rebate is $1 per square foot with a cap of $300. Staff recommends removing Synthetic Turf as a rebate item and increasing the Irrigation-less Groundcover cap to $1,000. Staff also recommends increasing the High Efficiency Washing Machine rebate from $100 to $200. Staff believes these revisions will increase participation in the rebate program and reduce outdoor water use. Staff has also received input from residents stating that other local agencies have higher rebates for turf removal and washing machines. Similar rebates are offered by other local municipalities and water agencies.

On October 4, 2022, the City Council reviewed the initial resolution proposal which included Synthetic Turf as a rebate item. After receiving the suggestion from Council to remove this item due to the detrimental environmental effects of this product, the Water Conservation Division researched the topic and discussed the issue with neighboring water agencies. Staff concurs with City Council that rebates for synthetic turf conversions should be discontinued. Resolution 8385 removes Synthetic Turf as a rebate item, while retaining the rebate for Irrigation-less Groundcover Conversions.

The City of Redlands is located within the San Bernardino Valley Municipal Water District's ("Valley District") service area. Valley District is a State Water Project Contractor and purchases imported water directly from the State Water Project ("SWP"). As a water retail agency within the Valley District service area, the City of Redlands annually receives Valley District reimbursement for water conservation efforts. This reimbursement will partially offset the additional appropriation necessary to expand the water conservation rebate program.

Finally, adoption of the Resolution is exempt from environmental review in accordance with California Environmental Quality Act Section 15061(B)(3) since it is reasonably certain that this action will have no significant negative environmental effect.

ALTERNATIVES:

City Council may deny the staff recommendation and provide alternate direction.

STRATEGIC PLAN:
N/A

SUBMITTED BY:
John R. Harris, Municipal Utilities and Engineering Director

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager
Danielle Garcia, Management Services/Finance Director
Goutam K. Dobey, City Engineer

PREPARED BY:
Jasmine Orozco Clark, Water Conservation Specialist

Fiscal Impact

Fiscal Year:	FY 22/23
Appropriation Required Y/N:	Yes
Amount:	$50,000
Budgeted Y/N:	No
Account No.:	501900

Discussion:

An additional Water Fund appropriation of $50,000 is necessary to fund the additional water conservation program rebates recommended by staff. The undesignated Water Fund balance is projected to be $18.4M on October 31, 2022.

Attachments

A. Resolution No. 8385
B. Resolution No. 7655 (reference only)
C. Additional Appropriation Form
D. Synthetic Turf Overview

RESOLUTION NO. 8385

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS IMPLEMENTING A WATER EFFICIENCY REBATE PROGRAM AND RESCINDING RESOLUTION NO. 7655

WHEREAS, pursuant to the State's Water Conservation Act of 2009, the City of Redlands is required to reduce per capita water use 20 percent by the year 2020;

WHEREAS, on February 21, 2012, the City Council of the City of Redlands ("City Council") approved Resolution No. 7125 establishing a water efficiency rebate program in an effort to encourage water conservation;

WHEREAS, on July 29, 2014, the California State Water Resources Control Board ("Water Board"), in an effort to increase water conservation during the current drought, required mandatory watering restrictions, which have since been modified by the Water Board, but continue to be observed locally;

WHEREAS, on May 19, 2015, the City of Redlands adopted Resolution No. 7523 amending a water efficiency rebate program and rescinded Resolution No. 7125;

WHEREAS, on June 21, 2016, the City of Redlands adopted the 2015 Regional Urban Water Management Plan which identifies programs and demand management measures to reduce per capita water use;

WHEREAS, on July 5, 2016, the City of Redlands adopted Resolution No. 7655 amending a water efficiency rebate program and rescinded Resolution No. 7523;

WHEREAS, pursuant to the March 28, 2022, Executive Order the California Water Resources Control Board ("Water Board") adopted an emergency water conservation regulation. The new regulation bans irrigating at commercial, industrial, and institutional properties;

WHEREAS, the City desires to maintain water conservation efforts during times of drought and modify the water efficiency rebate program ("Program") incentives; and

WHEREAS, after a careful review of the Program, this City Council specifically finds that:

A. The Program will continue to assist the City in complying with the mandates in the Water Conservation Act of 2009 and assist in continued water conservation efforts needed as a result of drought; and

B. The City's Program may be modified from time to time to improve its effectiveness and to meet the changing needs of the City and its customers.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF REDLANDS as follows:

Section 1. Resolution No. 7665 is hereby rescinded; and

Section 2. The Water Efficiency Rebate Program attached hereto as Exhibit "A" is hereby established and approved by the City Council.

ADOPTED, SIGNED AND APPROVED this 15th day of November 2022.

_____
Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, hereby certify that the foregoing resolution was duly adopted by the City Council at a regular meeting thereof held on the 15th day of November 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

EXHIBIT "A"
Water Efficiency Rebate Program
Program Details

Qualifications and Rules:

1. Participants must be a City of Redlands (City) water customer, and the project site must be located within the City's service area.
2. Rebate eligibility requires pre-inspection prior to beginning of work and post-inspection after work commences to ensure implementation and use of rebated products. Inspections are provided free of charge to customers.
3. Customer must provide the City with itemized dated purchase receipt(s) for any product included in this program.
4. All applications must be complete and signed for rebate eligibility.
5. Complete applications must include a completed Internal Revenue Service (IRS) Form W-9. If a customer receives more than $600 in rebate credit within a calendar year, the IRS requires a Form 1099 be issued. This line item is subject to change pending IRS requirements.
6. Rebates will not exceed the purchase amount of the product.
7. Rebates will be processed on a first-come, first-served basis until funds for the fiscal year are exhausted. Eligibility lists for future incentives/rebates will not be maintained.
8. Additional eligibility requirements listed within the incentive item description must be met to receive rebate for items.
9. After validation of purchase and installation of eligible product, customer will receive a rebate in the form of a credit to their utility bill. Providing customer remains an active customer, the credit will roll over onto the next bill until exhausted.
10. If an account is closed and a balance credit remains, a cash credit will not be given. However, a balance credit can roll over to a new account providing the new account is opened at the closing of the first account and the account holder is the same.
11. Work must take place within 90 days after pre-inspection clearance. If post-inspection or request for extension is not completed within 90 days, money allocated for the customer's project will be redirected back into available funds and another rebate. Upon request, one 30-day extension will be given.

Disclaimer:

The City reserves the right to deny applications if any conditions or qualifications are not met. Pre-inspections, post-inspections; and submission or possession of a rebate application does not guarantee a rebate/bill credit. The City reserves the right to change the terms of this program at its discretion at any time. By participating in this program, you waive and release the City from any and all claims and causes of action arising out of the installation or use of rebated item. Any claim based upon defect or failure of performance of rebated item should be pursued with the manufacturer/distributor. The City is not responsible for receipts or paperwork lost in the U.S. mail. The City does not guarantee any participation in this program will result in a lower water utility bill. Customer is responsible for complying with local ordinances, restrictions, rules and regulations prior to beginning work. At any time this program can be subject to change or termination without prior notice. If awarded a rebate, rebate is expected to show as a credit on the customer's next billing cycle following the date of rebate awarded.

INCENTIVE ITEM DESCRIPTIONS

High Efficiency Sprinklers:

High efficiency sprinklers are designed to reduce water waste and can be either rotary or spray heads. Instead of a fixed stream of water, rotary heads deliver multiple streams, reducing water waste. Rotary heads also deliver a wider stream and distribute less precipitation, decreasing overspray and runoff. Newer spray heads are designed to distribute water more efficiently and with more precision while using less water. Increase in water droplet size in newer spray heads reduces overspray while increasing droplets applied to vegetation. For rebate eligibility, high efficiency sprinklers must:

- Be new; and
- Have documentation (spec sheet, pamphlet, sticker, etc.) signifying water efficiency.

Additionally, there is no minimum sprinkler requirement to be eligible for rebate, however all sprinklers on an individual valve circuit must be replaced at the same time with the same model sprinkler for effective conservation and matched precipitation.

Weather-Based Irrigation Controllers:

Water-based irrigation controllers (WBICs) improve irrigation efficiency by reducing or eliminating irrigation run times based on weather, thus reducing unnecessary irrigation throughout the City's service area. WBICs have a weather based component that tracks current weather conditions by use of a weather sensor and will turn off or modify irrigation if precipitation is present or irrigation is not needed. To be eligible for rebate, WBICs must be:

- New;
- Capable of odd/even day irrigation scheduling;
- Replace an operable automated irrigation controller;
- Include a weather sensor OR the purchase and installation of a weather sensor that is compatible with the existing irrigation timer, thus making it a weather-based irrigation controller.

Irrigation-less Groundcover Conversion:

Irrigation-less groundcover conversions are eligible for rebate if replacing living, irrigated turf. Further eligibility requirements for this rebate are:

- Sprinklers must be capped in turf removal area
- Natural materials like mulch, decomposed granite, gravel, or rock must be used as groundcover
- For conversions in areas zoned residential, the use of decorative rock, gravel, or hardscape in landscape within the front yard shall be consistent with Redlands Municipal Code Section 18.168.120 (the combination or design may include rock ground cover not to exceed twenty percent of the total for any landscaped area) and all other applicable codes.

Irrigation-less groundcover must:

- Be water and air permeable*;
- Be installed by the homeowner or licensed contractor;
- Replace living, irrigated turf; and
- Require zero water use.

*Solid concrete and synthetic turf are not eligible for rebate. If bricks/pavers are used, they must be spaced at least ¼" apart to ensure water percolation.

High Efficiency Washing Machines:
High efficiency washing machines (HEWs) yield savings in both water and electricity. HEW's maximum water factor is 6 (gallons per cycle per cubic foot) and use 40% less water than conventional washing machines. Reduction in water usage also reduces energy usage. For rebate eligibility, all HEWs must:

- Be new;
- Be a current Energy Star qualified clothes washing machine, as found at www.energystar.gov;
- Have a water factor of 6 or less per load; and
- Replace a unit that uses a higher water factor than 6 per load.

High Efficiency Toilets:
High efficiency toilets (HETs) are toilets that have a low volume flush of 1.28 gallons per flush (GPF) or less. For rebate eligibility, all HETs must be:

- New;
- WaterSense certified and currently listed on www.epa.gov/watersense;
- Replacing models using 3.5 GPF or greater; and
- 1.28 GPF or less.

Drought Tolerant Plant Conversions:
Drought tolerant plant conversions are eligible for rebate if replacing living, irrigated turf. Further eligibility requirements for this rebate are:

- Customer must provide list of plants that they will be using at time of pre-inspection;
- All plant material must be low water use and listed on www.ie.watersavingplants.com
- Areas not covered by plant material must be covered with weed block material;
- Base of all plants must be covered with 2" of mulch (minimum) to ensure retention of moisture;
- All sprinklers must be capped and replaced with drip or micro sprinkler irrigation;
- For conversions in areas zoned residential, the use of decorative rock, gravel, or hardscape in landscape within the front yard shall be consistent with Redlands Municipal Code Section 18.168.120 (the combination or design may include rock ground cover not to exceed twenty percent (20%) of the total for any landscaped area) and all other applicable codes.

Small Grove Irrigation System Retrofit:
For rebate eligibility, at pre-inspection groves must:

- Currently irrigate using spray heads, rotary heads, rotors, soaker hoses, or flood irrigation;
- Irrigate twenty or more fruit trees;
- Contain healthy trees.

To receive post-inspection approval:

- Grass and mulches must be cleared from the base of the tree (should not encroach within the canopy line of a tree);
- Installation of weather based irrigation controller (WBIC);
- Capping or removal of previous irrigation system;
- Copy of receipts; and
- Completed water audit with City staff.

Other:
Additional conversions or products that can prove to reduce water consumption will also be available for rebate. This allows Redlands customers, particularly in the industrial and commercial uses to explore ways to improve water efficiency in their businesses. By offering incentives for additional water savings, given their ability to prove and validate water reduction, customers will be encouraged to practice water conservation in various methods resulting in additional water savings.

Rebate Amounts:
Incentive items and their rebate amounts are as follows:

Incentive Item	Rebate Amount
High Efficiency Sprinklers	$4/sprinkler
Weather-Based Irrigation Controllers	$150 each
Irrigation-less Groundcover Conversion	$1/square foot, maximum rebate: $1,000
High Efficiency Washing Machines	$200 each
High Efficiency Toilets	$100 each
Drought Tolerant Plant Conversions	$1/square foot, maximum rebate: $1,000
Small Grove Irrigation System Retrofit	Up to $1,000
Other	$1/ 150 gallons saved per year

Note: Total rebate amounts combined shall not exceed $1,000 per customer/per fiscal year.

RESOLUTION NO. 7655

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS IMPLEMENTING A WATER EFFICIENCY REBATE PROGRAM AND RESCINDING RESOLUTION NO. 7523

WHEREAS, pursuant to the State's Water Conservation Act of 2009, the City of Redlands is required to reduce per capita water use 20 percent by the year 2020; and

WHEREAS, on February 21, 2012, the City Council of the City of Redlands ("City Council") approved Resolution No. 7125 establishing a water efficiency rebate program in an effort to encourage water conservation; and

WHEREAS, on July 29, 2014, the California State Water Resources Control Board ("Water Board"), in an effort to increase water conservation during the current drought, required mandatory watering restrictions, which have since been modified by the Water Board, but continue to be observed locally; and

WHEREAS, on June 21, 2016, the City of Redlands adopted the 2015 Regional Urban Water Management Plan which identifies programs and demand management measures to reduce per capita water use; and

WHEREAS, the City desires to maintain water conservation efforts during times of drought and modify the water efficiency rebate program ("Program") incentives; and

WHEREAS, after a careful review of the Program, this City Council specifically finds that:

A. The Program will continue to assist the City in complying with the mandates in the Water Conservation Act of 2009 and assist in continued water conservation efforts needed as a result of drought; and
B. The City's Program may be modified from time to time to improve its effectiveness and to meet the changing needs of the City and its customers.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF REDLANDS as follows:

Section 1. Resolution No. 7523 is hereby rescinded;

Section 2. The Water Efficiency Rebate Program attached hereto as Exhibit "A" is hereby established and approved by the City Council.

ADOPTED, SIGNED AND APPROVED this 5th day of July, 2016.

Paul W. Foster, Mayor

ATTEST:

Sam Irwin, City Clerk

I, Sam Irwin, City Clerk of the City of Redlands, do hereby certify that the foregoing Resolution was duly adopted by the City Council at a regular meeting thereof held on the 5th day of July, 2016 by the following vote:

AYES: Councilmembers Harrison, Gilbreath, Barich, James; Mayor Foster
NOES: None
ABSENT: None
ABSTAIN: None

Sam Irwin, City Clerk

EXHIBIT "A"
Water Efficiency Rebate Program
Program Details

Qualifications and Rules:

1. Participants must be a City of Redlands (City) water customer, and the project site must be located within the City's service area.
2. Rebate eligibility requires pre-inspection prior to beginning of work and post-inspection after work commences to ensure implementation and use of rebated products. Inspections are provided free of charge to customers.
3. Customer must provide the City with itemized dated purchase receipt(s) for any product included in this program.
4. All applications must be complete and signed for rebate eligibility.
5. Complete applications must include a completed Internal Revenue Service (IRS) Form W-9. If a customer receives more than $600 in rebate credit within a calendar year, the IRS requires a Form 1099 be issued. This line item is subject to change pending IRS requirements.
6. Rebates will not exceed the purchase amount of the product.
7. Rebates will be processed on a first-come, first-served basis until funds for the fiscal year are exhausted. Eligibility lists for future incentives/rebates will not be maintained.
8. Additional eligibility requirements listed within the incentive item description must be met to receive rebate for items.
9. After validation of purchase and installation of eligible product, customer will receive a rebate in the form of a credit to their utility bill. Providing customer remains an active customer, the credit will roll over onto the next bill until exhausted.
10. If an account is closed and a balance credit remains, a cash credit will not be given. However, a balance credit can roll over to a new account providing the new account is opened at the closing of the first account and the account holder is the same.
11. Work must take place within 90 days after pre-inspection clearance. If post-inspection or request for extension is not completed within 90 days, money allocated for the customer's project will be redirected back into available funds and another rebate. Upon request, one 30-day extension will be given.

Disclaimer:

The City reserves the right to deny applications if any conditions or qualifications are not met. Pre-inspections, post-inspections; and submission or possession of a rebate application does not guarantee a rebate/bill credit. The City reserves the right to change the terms of this program at its discretion at any time. By participating in this program, you waive and release the City from any and all claims and causes of action arising out of the installation or use of rebated item. Any claim based upon defect or failure of performance of rebated item should be pursued with the manufacturer/distributor. The City is not responsible for receipts or paperwork lost in the U.S. mail. The City does not guarantee any participation in this program will result in a lower water utility bill. Customer is responsible for complying with local ordinances, restrictions, rules and regulations prior to beginning work. At any time this program can be subject to change or termination without prior notice. If awarded a rebate, rebate is expected to show as a credit on the customer's next billing cycle following the date of rebate awarded.

INCENTIVE ITEM DESCRIPTIONS

High Efficiency Sprinklers:

High efficiency sprinklers are designed to reduce water waste and can be either rotary or spray heads. Instead of a fixed stream of water, rotary heads deliver multiple streams, reducing water waste. Rotary heads also deliver a wider stream and distribute less precipitation, decreasing overspray and runoff. Newer spray heads are designed to distribute water more efficiently and with more precision while using less water. Increase in water droplet size in newer spray heads reduces overspray while increasing droplets applied to vegetation. For rebate eligibility, high efficiency sprinklers must:

- Be new; and
- Have documentation (spec sheet, pamphlet, sticker, etc.) signifying water efficiency.

Additionally, there is no minimum sprinkler requirement to be eligible for rebate, however all sprinklers on an individual valve circuit must be replaced at the same time with the same model sprinkler for effective conservation and matched precipitation.

Weather-Based Irrigation Controllers:

Water-based irrigation controllers (WBICs) improve irrigation efficiency by reducing or eliminating irrigation run times based on weather, thus reducing unnecessary irrigation throughout the City's service area. WBICs have a weather based component that tracks current weather conditions by use of a weather sensor and will turn off or modify irrigation if precipitation is present or irrigation is not needed. To be eligible for rebate, WBICs must be:

- New;
- Capable of odd/even day irrigation scheduling;
- Replace an operable automated irrigation controller;
- Include a weather sensor OR the purchase and installation of a weather sensor that is compatible with the existing irrigation timer, thus making it a weather-based irrigation controller.

Synthetic Turf/Irrigation-less Groundcover Conversion:

Synthetic turf/irrigation-less groundcover conversions eliminate substantial amounts of water used for turf irrigation. Watering costs and turf maintenance may also be reduced. To be eligible for rebate:

- Conversion must be approved by applicable homeowners associations prior to work beginning;
- A weed blocking material must cover the area beneath groundcover;
- Irrigation must be capped or removed; and
- For conversions in areas zoned residential, the use of decorative rock, gravel or hardscape in landscape within the front yard shall be consistent with Redlands Municipal Code Section 18.168.120 and all other applicable codes.

Additionally, synthetic turf/irrigation-less groundcover must:

- Be water and air permeable*;
- Be installed by the homeowner or licensed contractor;
- Replace living, irrigated turf; and
- Require zero water use.

*Solid concrete is not eligible for rebate. If bricks/pavers are used, they must be spaced at least ¼" apart to ensure water percolation.

High Efficiency Washing Machines:
High efficiency washing machines (HEWs) yield savings in both water and electricity. HEW's maximum water factor is 6 (gallons per cycle per cubic foot) and use 40% less water than conventional washing machines. Reduction in water usage also reduces energy usage. For rebate eligibility, all HEWs must:

- Be new;
- Be a current Energy Star qualified clothes washing machine, as found at www.energystar.gov;
- Have a water factor of 6 or less per load; and
- Replace a unit that uses a higher water factor than 6 per load.

High Efficiency Toilets:
High efficiency toilets (HETs) are toilets that have a low volume flush of 1.28 gallons per flush (GPF) or less. For rebate eligibility, all HETs must be:

- New;
- WaterSense certified and currently listed on www.epa.gov/watersense;
- Replacing models using 3.5 GPF or greater; and
- 1.28 GPF or less.

Drought Tolerant Plant Conversions:
Drought tolerant plant conversions are eligible for rebate if replacing living, irrigated turf. Further eligibility requirements for this rebate are:

- Customer must provide list of plants that they will be using at time of pre-inspection;
- All plant material must be low water use and listed on www.watersavinggardenfriendly.com;
- Areas not covered by plant material must be covered with weed block material;
- Base of all plants must be covered with 2" of mulch (minimum) to ensure retention of moisture;
- All sprinklers must be capped and replaced with drip or micro sprinkler irrigation;
  For conversions in areas zoned residential, the use of decorative rock, gravel or hardscape in landscape within the front yard shall be consistent with Redlands Municipal Code Section 18.168.120 and all other applicable codes.

Small Grove Irrigation System Retrofit:
For rebate eligibility, at pre-inspection groves must:

- Currently irrigate using spray heads, rotary heads, rotors, soaker hoses, or flood irrigation;
- Irrigate twenty or more fruit trees;
- Contain healthy trees.

To receive post-inspection approval:

- Grass and mulches must be cleared from the base of the tree (should not encroach within the canopy line of a tree);
- Installation of weather based irrigation controller (WBIC);
- Capping or removal of previous irrigation system;
- Copy of receipts; and
- Completed water audit with City staff.

Other:
Additional conversions or products that can prove to reduce water consumption will also be available for rebate. This allows Redlands customers, particularly in the industrial and commercial uses to explore ways to improve water efficiency in their businesses. By offering incentives for additional water savings, given their ability to prove and validate water reduction, customers will be encouraged to practice water conservation in various methods resulting in additional water savings.

Rebate Amounts:
Incentive items and their rebate amounts are as follows:

Incentive Item	Rebate Amount
High Efficiency Sprinklers	$4/sprinkler
Weather-Based Irrigation Controllers	$150 each
Synthetic Turf/ Irrigation-less Groundcover Conversion	$1/square foot, maximum rebate: $300
High Efficiency Washing Machines	$100 each
High Efficiency Toilets	$100 each
Drought Tolerant Plant Conversions	$.61/square foot
Small Grove Irrigation System Retrofit*	Up to $1,000
Other	$1/ 150 gallons saved per year

TOTAL REBATE AMOUNTS COMBINED SHALL NOT EXCEED $500 PER CUSTOMER/ PER FISCAL YEAR.*

*Small Grove Irrigation System Retrofit rebates are exempt from $500 cap and has limited funding. Item will be discontinued when funds are exhausted.

CITY OF REDLANDS
REQUEST FOR ADDITIONAL APPROPRIATION

DATE OF REQUEST: 8/27/2022

FINANCE USE ONLY
TRANSACTION NO:
ACCOUNTING PERIOD:

An additional appropriation is hereby requested as follows:

Department: MUED

EXPENDITURE APPROPRIATION INCREASE (if applicable)				
Account Description	**Orgkey**	**Object Code**	**Job Ledger (If applicable)**	**Amount**
Special Program Expenditures	501900	6708		$ 50,000.00
				$ $ 50,000.00

REVENUE APPROPRIATION INCREASE (if applicable)				
Account Description	**Orgkey**	**Object Code**	**Job Ledger (If applicable)**	**Amount**
				$ 0.00
				$ $ 0.00

JUSTIFICATION: An expanded budget will allow the Water Conservation Division to increase participation in the rebate program, thus reducing outdoor water usage and removal of water-thirsty turf.

Requested By: _____
Department Head

Recommended By Finance Director:

Yes _____ No _____ Signed _____

Comments: _____

Recommended: _____
City Manager

Approved by City Council:

Date: _____

Signed: _____
City Clerk

Synthetic Turf Overview

Negative Effects on the Environment

- Leads to heat island effect
- Not recyclable
- Not living vegetation, will not provide habitat
- Soil needs to be heavily compacted and leveled which damages soil and roots of nearby trees
- Manufacturing requires natural resources and contributes to carbon emissions

Water Agencies Excluding Synthetic Turf from Rebate Programming

- Metropolitan Water District and its 26 member agencies including:
    - Eastern Municipal Water District
    - Western Municipal Water District
    - Inland Empire Utilities Agency
    - City of Anaheim
    - City of Fullerton
    - City of Long Beach
    - City of Beverly Hills

Information About Crumb-Rubber Infilled Synthetic Turf Athletic Fields

- https://www.epa.gov/chemical-research/july-2019-report-tire-crumb-rubber-characterization-0
- Information About Crumb-Rubber Infilled Synthetic Turf Athletic Fields is available in Portable Document Format (PDF, 12 pp.)

SUMMARY OF INFORMATION FOR CRUMB-RUBBER INFILLED SYNTHETIC TURF ATHLETIC FIELDS

Heat stress	Surface temperatures on crumb-rubber infilled synthetic turf fields can reach levels of discomfort and may contribute to heat stress. This warrants consideration when making decisions about installing and using a synthetic turf field. While watering synthetic turf may briefly reduce surface temperatures, a number of factors may influence its effectiveness. People using these fields should be advised to remain hydrated and to seek relief from the heat in shaded areas.
Injury	Overall, studies have found no consistent differences in injury rates between natural and crumb-rubber infilled synthetic turf.
Infection	Skin cuts and abrasions that may result from contact with athletic fields (natural and synthetic turf) are susceptible to infection. Athletes and others developing skin abrasions should clean the wounds and seek prompt medical attention. Athletes should avoid sharing equipment, razors, towels, soap and other objects with others, because these items can spread germs.
Latex allergy	NYSDOH is not aware of cases of latex allergy resulting from contact with crumb rubber or synthetic turf fields.
Chemical exposures	Results from numerous studies suggest that the potential for chemical exposures from crumb rubber in synthetic turf is low; further studies by the federal government and California are underway to fill data gaps and decrease uncertainties.
Cancer	Analyses in California and Washington State have not found support for cancer associations with artificial turf field use; various exposure and risk assessments do not support a cancer risk.

City Council Meeting **I. 13.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Approve the first amendment to the non-professional services agreement with TESCO Controls, Inc. for the Water Distribution System Supervisory Control and Data Acquisition ("SCADA") Upgrade Project to extend the term of the agreement (Municipal Utilities and Engineering Director Harris)

MOTION(S):

If City Council determines the staff recommendation is appropriate, the following motion is provided:

I move to approve the first amendment to the non-professional services agreement with TESCO Controls, Inc. for the Water Distribution System Supervisory Control and Data Acquisition ("SCADA") Upgrade Project.

RECOMMENDATION:

Staff recommends City Council approve the first amendment to the non-professional services agreement with TESCO Controls, Inc. for the Water Distribution System Supervisory Control and Data Acquisition ("SCADA") Upgrade Project.

DISCUSSION:

The Municipal Utilities and Engineering Department (MUED) utilizes a supervisory control and data acquisition (SCADA) system to operate and monitor fifty-five (55) facilities within the water distribution system. Initially, twenty-four (24) of these facilities were on the San Bernardino County (County) analog radio network, ten (10) of these facilities were on a City-owned radio network, and the remaining twenty-one (21) facilities were operated manually. In April 2018, the County notified MUED staff that their analog radio network would soon be abandoned, and agreed to maintain their network only until the City's

SCADA system is transitioned to the City-owned radio network. Soon after, MUED staff initiated the process to design a comprehensive SCADA system upgrade, which included a system review, field investigation of all sites, and preparation of plans, specifications and cost estimates to transition all water distribution system facilities to the City-owned radio network. Several sites have already been transitioned to the City-owned radio network. The remaining sites are scheduled to transition onto the City-owned radio network with this Project.

On December 7, 2021, City Council approved a Non-Professional Services Agreement with TESCO Controls, Inc. (TESCO) to complete the project in two (2) annual phases. The not-to-exceed value for the first phase, which is nearing completion, is $3,679,720. The not-to-exceed value for the second phase is $1,899,700 and will result in a combined not-to-exceed value of $5,579,420 if the First Amendment to the Agreement is approved. No additional revisions to the original Agreement are proposed.

ALTERNATIVES:

City Council may deny the staff recommendation.

STRATEGIC PLAN:

N/A

SUBMITTED BY:

John R. Harris, Municipal Utilities and Engineering Director

RECOMMENDED BY:

Charles M. Duggan Jr., City Manager

REVIEWED BY:

Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager
Danielle Garcia, Management Services/Finance Director

PREPARED BY:

Goutam K. Dobey, City Engineer

Fiscal Impact

Discussion:

There is no fiscal impact associated with the approval of the First Amendment of the Agreement. The project cost is included in the MUED approved budget.

Attachments

A. First Amendment to TESCO Agreement

B. Tesco Controls Agreement (Reference only)

FIRST AMENDMENT TO AGREEMENT TO PERFORM NON-PROFESSIONAL SERVICES FOR IMPROVEMENT TO PUBLIC BUILDING AND GROUNDS

This first amendment ("First Amendment") to the Agreement for the water distribution system supervisory control and data acquisition ("SCADA") upgrade project ("Agreement"), dated December 7, 2021, by and between the City of Redlands, a municipal corporation and a general law city ("City"), and TESCO Controls, Inc., a California Corporation ("Contractor"), is made and entered into this 15th day of November, 2022**.**

RECITALS

WHEREAS, it is the desire of the City and Contractor to extend the time for completion of the services to December 7, 2023.

WHEREAS, it is the desire of the City and Contractor to implement the Phase 3 project scope of work as specified in the Exhibit "C".

NOW, THEREFORE, for good and valuable consideration in the receipt of which is hereby acknowledge City and Contractor agree as follows:

AGREEMENT

Section 1. Section 4.2 of the Agreement, entitled "Performance of Services," is hereby amended to read as follows:

"4.2 Contractor shall complete the Services by December 7, 2023, unless the Services are earlier terminated as permitted herein."

Section 2. Section 5.2 of the Agreement, entitled "Payments to Contractor," is hereby amended to read as follows:

"5.2 Total compensation for Contractor's performance of the Services shall not exceed the amount of five million five hundred seventy-nine thousand four hundred twenty dollars ($5,579,420). City shall pay Contractor on a time and materials basis up to the not-to-exceed amount in accordance with the rates specified in Exhibit "C," titled "Price and Fee Bid," which is attached hereto and incorporated herein by reference."

Section 3. All other provisions of the Agreement shall remain unchanged by this First Amendment and in effect.

Section 4. This Amendment may be executed in counterparts, each of which shall be deemed an original, but all of which, together, shall constitute one and the same instrument.

[Signatures on Next Page]

CITY OF REDLANDS

By: _____
Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

TESCO CONTROLS, INC.

By: _____
Shain Thomas, CEO

AGREEMENT TO PERFORM NON-PROFESSIONAL SERVICES
FOR IMPROVEMENT TO PUBLIC BUILDINGS AND GROUNDS

This agreement for the provision of water distribution supervisory control and data acquisition ("SCADA") system upgrade ("Agreement") is made and entered in this 7th day of December, 2021 ("Effective Date"), by and between the City of Redlands, a municipal corporation ("City") and TESCO Controls, Inc., a California corporation ("Contractor"). City and Contractor are sometimes individually referred to herein as a "Party" and, together, as the "Parties." In consideration of the mutual promises contained herein, City and Contractor agree as follows:

ARTICLE 1 – ENGAGEMENT OF CONTRACTOR

1.1 City hereby engages Contractor to perform water distribution SCADA system upgrade services for City (the "Services"). The Services that Contractor shall perform are more particularly described in Exhibit "A," titled "Scope of Services," which is attached hereto and incorporated herein by reference.

1.2 The Services shall be performed by Contractor in a professional manner, and Contractor represents that it has the skill and the professional expertise necessary to provide the Services to City at a level of competency presently maintained by other practicing professional Contractors in the industry providing like and similar types of Services.

ARTICLE 2 – RESPONSIBILITIES OF CONTRACTOR

2.1 Contractor shall comply with all applicable federal, state and local laws and regulations in the performance of the Services including, but not limited, to all applicable Labor Code and prevailing wage laws and non-discrimination laws, including the Americans with Disabilities Act. Pursuant to Labor Code section 1773.2, copies of the prevailing rates of per diem wages as determined by the Director of the California Department of Industrial Relations for each craft, classification or type of worker needed to undertake the Services are on file at City's Municipal Utilities and Engineering Department, located at the Civic Center, 35 Cajon Street, Suite 15A (Mailing: P.O. Box 3005), Redlands, California 92373.

2.2 Contractor acknowledges that if it violates the Labor Code provisions relating to prevailing wages that City may enforce such provisions by withholding payments to Contractor or its subcontractors pursuant to Labor Code section 1771.6.

2.3 If Contractor executes an agreement with a subcontractor to perform any portion of the Services, Contractor shall comply with Labor Code sections 1775 and 1777.7, and shall provide the subcontractor with copies of the provisions of Labor Code sections 1771, 1775, 1776, 1777.5, 1813 and 1815. Contractor acknowledges that the statutory provisions establishing penalties for failure to comply with state wage and hour laws and to pay prevailing wages may be enforced by City pursuant to Labor Code sections 1775 and 1813.

2.4 Contractor and its subcontractors shall comply with the provisions of Labor Code section

1776 regarding payroll records maintenance, certifications, retention and inspection.

2.5 Contractor acknowledges that eight (8) hours constitutes a legal day's work pursuant to Labor Code section 1810.

2.6 Contractor shall comply with the provisions of Labor Code section 1777.5 as to apprenticeships, and Labor Code sections 1771, 1775, 1776, 1777.5, 1813 and 1815.

2.7 Pursuant to Public Contract Code section 7103.5(b), Contractor offers and agrees to assign to City all rights, title and interest in and to all causes of action it may have under section 4 of the Clayton Act (15 U.S.C. section 15) or under the Cartwright Act (Chapter 2 (commencing with section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, goods or materials pursuant to this Agreement.

ARTICLE 3 – RESPONSIBILITIES OF CITY

3.1 City shall make available to Contractor information in its possession that may assist Contractor in performing the Services.

3.2 City designates John R. Harris, Municipal Utilities and Engineering Department Director, as City's representative with respect to performance of the Services, and such person shall have the authority to transmit instructions, receive information, interpret and define City's policies and decisions with respect to performance of the Services.

ARTICLE 4 – PERFORMANCE OF SERVICES

4.1 Contractor shall perform and complete the Services in a prompt and diligent manner in accordance with the schedule set forth in Exhibit "A," which is attached hereto and incorporated herein by reference. The Services shall commence as of the Effective Date of this Agreement.

4.2 The term of this Agreement shall be for a period of one (1) year from the Effective Date of this Agreement (the "Initial Term"). The City shall have the option to extend the Initial Term of this Agreement by one (1) additional one-year term (an "Extended Term"), on the same terms and conditions, by providing written notice to Contractor at least thirty (30) days prior to the expiration of the Initial Term and subsequently, at least thirty (30) days before any Extended Term. The Initial Term and the Extended Term are hereby collectively, referred to herein as the "Term" of this Agreement.

ARTICLE 5 – PAYMENTS TO CONTRACTOR

5.1 Contractor shall furnish a labor and material bond in the form attached hereto as Exhibit "B," which is attached hereto and incorporated herein by reference, in an amount equal to one hundred percent (100%) of the total compensation to be paid to Contractor pursuant to this Agreement.

5.2 The compensation for Contractor's performance of the Services shall not exceed the amount of three million six hundred seventy nine thousand seven hundred twenty dollars $3,679,720) for the Services provided during the Initial Term. Should this Agreement be extended, the compensation for Contractor's performance for the Services shall not exceed the amount of one million eight hundred ninety nine thousand seven hundred dollars ($1,899,700) for the Extended Term. For the Initial Term and an Extended Term, City shall pay Contractor on a time and materials basis up to the not to not-to-exceed amount in accordance with the rates specified in Exhibit "C," titled "Price and Fee Bid," which is attached hereto and incorporated herein by reference.

5.3 Contractor shall submit monthly invoices to City describing the Services performed during the preceding month. Contractor's invoices shall include a brief description of the Services performed, the dates the Services were performed, the number of hours spent and by whom. City shall pay Contractor no later than thirty (30) days after receipt and approval by City of Contractor's invoice.

5.3 Any notice or other communication required, or which may be given, pursuant to this Agreement, shall be in writing. Any such notice shall be deemed delivered (i) on the date of delivery in person; (ii) five (5) days after deposit in first class registered mail, with return receipt requested; (iii) on the actual delivery date if deposited with an overnight courier; or (iv) on the date sent by facsimile or electronic mail transmission (including PDF), if confirmed with a copy sent contemporaneously by first class, certified, registered or express mail; in each case properly posted and fully prepaid to the appropriate address set forth below, or such other address as a Party may provide notice in accordance with this section:

CITY	CONTRACTOR
City Clerk	Shain Thomas, CEO
City of Redlands	TESCO Controls, Inc.
35 Cajon Street	8440 Florin Road
P.O. Box 3005 (mailing)	Sacramento, CA, 95828
Redlands, CA 92373	sthomas@tescocontrols.com
jdonaldson@cityofredlands.org	(916) 395-8800
(909) 798-7531	(916) 429-2817

ARTICLE 6 – INSURANCE AND INDEMNIFICATION

6.1 The following insurance coverage required by this Agreement shall be maintained by Contractor for the duration of its performance of the Services. Contractor shall not perform any Services unless and until the required insurance listed below is obtained by Contractor. Contractor shall provide City with certificates of insurance and endorsements evidencing such insurance prior to commencement of the Services. Insurance policies shall include a provision prohibiting cancellation or modification of the policy except upon thirty (30) days prior written notice to City.

A. Workers' Compensation and Employer's Liability insurance in the amount that meets statutory requirements with an insurance carrier acceptable to City, or certification to

City that Contractor is self-insured or exempt from the workers' compensation laws of the State of California. Contractor shall execute and provide City with Exhibit "D," titled "Workers' Compensation Insurance Certification," which is attached hereto and incorporated herein by this reference, prior to performance of the Services.

B. Comprehensive General Liability insurance with carriers acceptable to City in the minimum amount of One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) aggregate, for public liability, property damage and personal injury is required. City shall be named as an additional insured and such insurance shall be primary and non-contributing to any insurance or self-insurance maintained by City.

C. Business Auto Liability coverage, with minimum limits of One Million Dollars ($1,000,000) per occurrence, combined single limit bodily injury liability and property damage liability. This coverage shall include all Contractor owned vehicles used in connection with Contractor's provision of the Services, hired and non-owned vehicles, and employee non-ownership vehicles. City shall be named as an additional insured and such insurance shall be primary and non-contributing to any insurance or self-insurance maintained by City.

6.2 Contractor shall defend, indemnify and hold harmless City and its elected and appointed officials, employees and agents from and against any and all claims, losses or liability, including attorneys' fees, arising from injury or death to persons or damage to property occasioned by any negligent act or omission by, or the willful misconduct of, Contractor, or its officers, employees and agents in performing the Services.

ARTICLE 7 – CONFLICTS OF INTEREST

7.1 Contractor covenants and represents that it does not have any investment or interest in any real property that may be the subject of this Agreement or any other source of income, interest in real property or investment that would be affected in any manner or degree by the performance of Contractor's Services. Contractor further covenants and represents that in the performance of its duties hereunder, no person having any such interest shall perform any Services under this Agreement.

7.2 Contractor agrees it is not a designated employee within the meaning of the Political Reform Act because Contractor:

A. Does not make a governmental decision whether to:

(i) approve a rate, rule or regulation, or adopt or enforce a City law;
(ii) issue, deny, suspend or revoke any City permit, license, application, certification, approval, order or similar authorization or entitlement;
(iii) authorize City to enter into, modify or renew a contract;
(iv) grant City approval to a contract that requires City approval and to which City is a party, or to the specifications for such a contract;
(v) grant City approval to a plan, design, report, study or similar item;

(vi) adopt, or grant City approval of, policies, standards or guidelines for City or for any subdivision thereof.

B. Does not serve in a staff capacity with City and in that capacity, participate in making a governmental decision or otherwise perform the same or substantially the same duties for City that would otherwise be performed by an individual holding a position specified in City's Conflict of Interest Code under Government Code section 87302.

7.3 In the event City determines that Contractor must disclose its financial interests, Contractor shall complete and file a Fair Political Practices Commission Form 700, Statement of Economic Interests, with the City Clerk's office pursuant to the written instructions provided by the City Clerk.

ARTICLE 8 – GENERAL CONSIDERATIONS

8.1 In the event any action is commenced to enforce or interpret any of the terms or conditions of this Agreement the prevailing Party shall, in addition to any costs and other relief, be entitled to the recovery of its reasonable attorneys' fees, including fees for the use of in-house counsel by a Party.

8.2 Contractor shall not assign any of the Services, except with the prior written approval of City and in strict compliance with the terms and conditions of this Agreement. Any assignment or attempted assignment without such prior written consent may, in the sole discretion of City, results in City's immediate termination of this Agreement.

8.3 Contractor is for all purposes under this Agreement an independent contractor and shall perform the Services as an independent contractor. Neither City nor any of its agents shall have control over the conduct of Contractor or Contractor's employees, except as herein set forth. Contractor shall supply all necessary tools and instrumentalities required to perform the Services. Assigned personnel employed by Contractor are for its account only, and in no event shall Contractor or personnel retained by it be deemed to have been employed by City or engaged by City for the account of, or on behalf of City. Contractor shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent, nor shall Contractor have any authority, express or implied, to bind City to any obligation.

8.4 This Agreement may be terminated by City, in its sole discretion, by providing not less than five (5) days prior written notice to Contractor of City's intent to terminate. If this Agreement is terminated by City, an adjustment to Contractor's compensation shall be made, but (i) no amount shall be allowed for anticipated profit or unperformed Services, and (ii) any payment due Contractor at the time of termination may be adjusted to the extent of any additional costs to City occasioned by any default by Contractor. Upon receipt of a termination notice, Contractor shall immediately discontinue its provision of the Services and, within five (5) days of the date of the termination notice, deliver or otherwise make available to City, copies (in both hard copy and electronic form, where applicable) of project related data, design calculations, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been

accumulated by Contractor in performing the Services. Contractor shall be compensated on a pro-rata basis for Services completed up to the date of termination.

8.5 Contractor shall maintain books, ledgers, invoices, accounts and other records and documents evidencing costs and expenses related to the Services for a period of three (3) years, or for any longer period required by law, from the date of final payment to Contractor pursuant to this Agreement. Such books shall be available at reasonable times for examination by City at the office of Contractor.

8.6 This Agreement, including the Exhibits incorporated herein by reference, represents the entire agreement and understanding between the Parties as to the matters contained herein, and any prior negotiations, written proposals or verbal agreements relating to such matters are superseded by this Agreement. Except as otherwise provided for herein, any amendment to this Agreement shall be in writing, approved by City and signed by City and Contractor.

8.7 This Agreement shall be governed by and construed in accordance with the laws of the State of California, without regard to its conflicts of laws provisions. The Parties agree that all actions or proceedings arising in connection with this Agreement shall be tried and litigated only in the state courts located in San Bernardino County, California, and the federal courts located in Riverside County, California.

8.8 If one or more of the sentences, clauses, paragraphs or sections contained in this Agreement is declared invalid, void or unenforceable by a court of competent jurisdiction, the same shall be deemed severable from the remainder of this Agreement and shall not affect, impair or invalidate the remaining sentences, clauses, paragraphs or sections contained herein, unless to do so would deprive a Party of a material benefit of its bargain under this Agreement.

IN WITNESS WHEREOF, duly authorized representatives of City and Contractor have signed in confirmation of this Agreement.

CITY OF REDLANDS	TESCO CONTROLS, INC.
By: _____	By: _____
Paul T. Barich, Mayor	Shain Thomas, CEO

ATTEST:

_____
Jeanne Donaldson, City Clerk

EXHIBIT "A"

SCOPE OF SERVICES

The scope of services are inclusive of the instrumentation and controls required to upgrade **thirty-one (31)** sites operating within the City of Redlands' (City) water distribution system. The new control panels, instrumentation, and services listed in the *Scope of Supply* below have been quoted in conformance with the plans and specifications (*section 16010*) engineered for the City's CIP **Project No. 501006**.

Additionally, the electrical and mechanical trade work required of the new panel and instrumentation installations is also included under TESCO's scope quoted herein. Refer to the *Scope of Supply* below for a complete listing of the materials and services to be provided by TESCO on this project.

Scope of Supply

		CONTROL PANEL & INSTRUMENTATION UPGRADES
1	1	**2330 BOOSTER PUMP STATION [RTU-80]** **Control Panel to include:** ▪ Wall-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 36"H x 30"W x 16"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ (2) Single-Point Door Latches with Pad-Lockable Hasps ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ 8-Channel AI Module ▫ 4-Channel AO Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing

		▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Pressure Transmitter (B-BOO PIT-61) ▪ Pressure Switch (B-BOO PSH-61) ▪ Flow Meter (B-BOO FIT-72) ▪ (3) Intrusion Switches (B-BOO ZS-92, 93, & 94)
2	1	**AGATE WELL #1 [RTU-30]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing****

Item	Qty	Description
		Instrumentation to include: ▪ Level Transmitter (W-AGA LT-41) ▪ Pressure Transmitter (W-AGA PIT-61) ▪ Pressure Switch (W-AGA PSH-61) ▪ Flow Meter (W-AGA FIT-71)
3	1	**AIRPORT WELL #1 [RTU-31]** **Motor Control Center to include:** ▪ Pad-Mount Exterior NEMA 3R Weather Wrap Galvanized Steel Enclosure ▫ Dimensions: 90"H x 176"W x 32"D ▫ (3) Weather Wrap Sections ▫ 3-Point Door Latches with Pad-Lockable Hasps ▫ Panel Top Sunshade ▫ Powder Coated Camel Tan ▪ Pad-Mount Interior NEMA 1 Galvanized Steel Enclosure ▫ 480VAC, 800A, 3-Phase, 35kAIC ▫ (5) Sections: Metering, Power Distribution, ATS (*Future*), Pump Controls, & RTU ▫ Section Depth: 20" ▫ Backpans per Layout ▪ Provisions for 800A SCE Utility Meter ▪ 800A Main Disconnect Breaker ▪ 3-Pole Power Distribution Block ▪ 10kVA Transformer ▪ 12-Circuit Panelboard ▪ Pump/RVSS Thermal Magnetic Circuit Breaker ▪ 400HP ABB PSTX Reduced Voltage Soft Starter with Door-Mount HIM ▪ Control Power Transformer ▪ Set of Pump Controls & Pilot Devices ▫ HOA Switch ▫ Push Buttons ▫ Indicator Lights ▫ Elapsed Time Meter ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ (2) 8-Channel AI Modules ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required

Item	Qty	Description
		▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacles ▪ Service Lights with Switches ▪ Fan Kits with Filtered Louvers ▪ Condensation Heaters with Thermostats ▪ DIN Rails, Terminal Blocks, Distribution Breakers, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** <u>Instrumentation</u> to include: ▪ Level Transmitter (W-AIR1 LT-41) ▪ Pressure Transmitter (W-AIR1 PIT-61) ▪ Pressure Switch (W-AIR1 PSH-61) ▪ Flow Transmitter (W-AIR1 FIT-71) ▪ Intrusion Switch (W-AIR1 ZS-92) <u>Arc Flash Risk Assessment</u> to include: ▪ Electrical Equipment Data Collection ▪ Arc Flash Report ▫ Single-Line Diagram ▫ Fault & Short Circuit Analysis ▫ Overcurrent Protection Device Coordination Study ▫ Electrical Equipment Evaluation ▫ Electrical Hazards Mitigation Analysis ▫ Arc Flash Incident Energy Levels & PPE Requirements ▪ Electrical Equipment Safety Labels (Arc Flash & Shock Hazards)
4	1	**<u>AIRPORT WELL #2 [RTU-32]</u>** **<u>Control Panel</u> to include:** ▪ Wall-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 36"H x 30"W x 16"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ (2) Single-Point Door Latches with Pad-Lockable Hasps ▫ Backpan per Layout ▫ Exterior Powder Coated <u>Camel Tan</u> ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ (2) 8-Channel AI Modules ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz <u>Remote</u> Radio

Item	Qty	Description
		▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Level Transmitter (W-AIR2 LT-41) ▪ Pressure Transmitter (W-AIR2 PIT-61) ▪ Pressure Switch (W-AIR2 PSH-61) ▪ Flow Transmitter (W-AIR2 FIT-71) ▪ Intrusion Switch (W-AIR2 ZS-92)
5	1	**CALIFORNIA STREET WELL [RTU-33]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 36"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch

Item	Qty	Description
		▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** <u>Instrumentation</u> to include: ▪ (2) Level Transmitters (W-CAL LT-41 & LIT-51) ▪ Pressure Transmitter (W-CAL PIT-61) ▪ Pressure Switch (W-CAL PSH-61)

6	1	**<u>CHICKEN HILL WELL [RTU-34]</u>**
		<u>Motor Control Center</u> to include:
		▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure
		  ▫ 480VAC, 200A, 3-Phase, 35kAIC
		  ▫ Dimensions: 60"H x 90"W x 20"D
		  ▫ (3) Sections: Metering / Power Distribution, Pump Controls, & RTU
		  ▫ 3-Point Door Latches with Pad-Lockable Hasps
		  ▫ Panel Top Sunshade
		  ▫ Backpans per Layout
		  ▫ Powder Coated <u>Camel Tan</u>
		▪ Provisions for 200A SCE Utility Meter
		▪ 200A Main Disconnect Breaker
		▪ 3-Pole Power Distribution Block
		▪ 5kVA Transformer
		▪ 12-Circuit Panelboard
		▪ Pump/RVSS Thermal Magnetic Circuit Breaker
		▪ 100HP ABB PSTX Reduced Voltage Soft Starter with Door-Mount HIM
		▪ Control Power Transformer
		▪ Set of Pump Controls & Pilot Devices
		  ▫ HOA Switch
		  ▫ Push Buttons
		  ▫ Indicator Lights
		  ▫ Elapsed Time Meter
		▪ Power Failure Relay
		▪ EMI/RFI Power Line Filter
		▪ 24VDC Power Supply
		▪ (2) 12VDC Backup Batteries & Charger
		▪ Modicon M340 PLC
		  ▫ 8-Slot Backplane
		  ▫ Power Supply
		  ▫ Processor Module
		  ▫ (2) 16-Point DI Modules
		  ▫ 16-Point DO Module
		  ▫ 8-Channel AI Module
		  ▫ Screw Terminal Strips & Slot Covers as required
		▪ C-more 12" Touchscreen OIT
		▪ MDS Orbit 900MHz <u>Remote</u> Radio
		  ▫ Yagi Directional Antenna
		  ▫ Lightning Arrestor
		  ▫ Coaxial Cable as required

Item	Qty	Description
		▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacles ▪ Service Lights with Switches ▪ Fan Kits with Filtered Louvers ▪ Condensation Heaters with Thermostats ▪ DIN Rails, Terminal Blocks, Distribution Breakers, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** <u>Instrumentation</u> to include: ▪ Level Transmitter (W-CHI LT-41) ▪ Pressure Transmitter (W-CHI PIT-61) ▪ Pressure Switch (W-CHI PSH-61) ▪ Flow Transmitter (W-CHI FIT-71) <u>Arc Flash Risk Assessment</u> to include: ▪ Electrical Equipment Data Collection ▪ Arc Flash Report ▫ Single-Line Diagram ▫ Fault & Short Circuit Analysis ▫ Overcurrent Protection Device Coordination Study ▫ Electrical Equipment Evaluation ▫ Electrical Hazards Mitigation Analysis ▫ Arc Flash Incident Energy Levels & PPE Requirements ▪ Electrical Equipment Safety Labels (Arc Flash & Shock Hazards)
7	1	**<u>CHURCH STREET WELL [RTU-35]</u>** **<u>Control Panel Retrofit</u> to include:** ▪ Preassembled Backpan (*mounted within RTU section of existing MCC enclosure*) ▫ Dimensions: 68"H x 22.5"W ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ (2) 8-Channel AI Modules ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz <u>Remote</u> Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*)

Item	Qty	Description
		▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Level Transmitter (W-CHU LT-41) ▪ Pressure Transmitter (W-CHU PIT-61) ▪ Intrusion Switch (W-CHU ZS-92)
8	1	**COOLIE HAT FLOW MONITOR [RTU-93]** **Control Panel to include:** ▪ Wall-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 36"H x 30"W x 16"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ (2) Single-Point Door Latches with Pad-Lockable Hasps ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Current Loop Isolator/Splitter (*4-20mA Flow Signal*) ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ 16-Point DI Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 7" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Intrusion Switch (F-COO ZS-92)
9	1	**CRAFTON WELL [RTU-59]**

Item	Qty	Description
		Motor Control Center to include: ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ 480VAC, 400A, 3-Phase, 35kAIC ▫ Dimensions: 72"H x 156"W x 24"D ▫ (5) Sections: Utility Pull Section, Metering, Power Distribution, Pump Controls, & RTU ▫ 3-Point Door Latches with Pad-Lockable Hasps ▫ Panel Top Sunshade ▫ Backpans per Layout ▫ Powder Coated Camel Tan ▪ Provisions for 400A SCE Utility Meter ▪ 400A Main Disconnect Breaker ▪ 3-Pole Power Distribution Block ▪ 10kVA Transformer ▪ 12-Circuit Panelboard ▪ Pump/RVSS Thermal Magnetic Circuit Breaker ▪ 200HP ABB PSTX Reduced Voltage Soft Starter with Door-Mount HIM ▪ Control Power Transformer ▪ Set of Pump Controls & Pilot Devices ▫ HOA Switch ▫ Push Buttons ▫ Indicator Lights ▫ Elapsed Time Meter ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacles ▪ Service Lights with Switches ▪ Fan Kits with Filtered Louvers ▪ Condensation Heaters with Thermostats ▪ DIN Rails, Terminal Blocks, Distribution Breakers, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****Includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include:

Item	Qty	Description

		▪ Level Transmitter (W-CRA LT-41)
		▪ Pressure Transmitter (W-CRA PIT-61)
		▪ Pressure Switch (W-CRA PSH-61)
		▪ Flow Transmitter (W-CRA FIT-71)
		
		Arc Flash Risk Assessment to include:
		▪ Electrical Equipment Data Collection
		▪ Arc Flash Report
		  ▫ Single-Line Diagram
		  ▫ Fault & Short Circuit Analysis
		  ▫ Overcurrent Protection Device Coordination Study
		  ▫ Electrical Equipment Evaluation
		  ▫ Electrical Hazards Mitigation Analysis
		  ▫ Arc Flash Incident Energy Levels & PPE Requirements
		▪ Electrical Equipment Safety Labels (Arc Flash & Shock Hazards)

10	1	**CRESCENT & CROWN PRESSURE MONITOR [RTU-91]**
		Control Panel to include:
		▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure
		  ▫ Dimensions: 60"H x 30"W x 18"D
		  ▫ Single Section Configuration (Exterior & Dead-Front Doors)
		  ▫ 3-Point Door Latch with Pad-Lockable Hasp
		  ▫ Panel Top & Rear Sunshades
		  ▫ Backpan per Layout
		  ▫ Exterior Powder Coated Camel Tan
		▪ Circuit Breakers as required
		▪ Power Failure Relay
		▪ EMI/RFI Power Line Filter
		▪ 24VDC Power Supply
		▪ (2) 12VDC Backup Batteries & Charger
		▪ Modicon M340 PLC
		  ▫ 8-Slot Backplane
		  ▫ Power Supply
		  ▫ Processor Module
		  ▫ 16-Point DI Module
		  ▫ 8-Channel AI Module
		  ▫ Screw Terminal Strips & Slot Covers as required
		▪ C-more 7" Touchscreen OIT
		▪ MDS Orbit 900MHz Remote Radio
		  ▫ Yagi Directional Antenna
		  ▫ Lightning Arrestor
		  ▫ Coaxial Cable as required
		  ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*)
		  ▫ Cable Grounding & Weatherproofing
		▪ 5-Port Unmanaged Ethernet Switch
		▪ GFCI Convenience Receptacle
		▪ Service Light with Switch
		▪ Fan Kit with Filtered Louvers
		▪ Condensation Heater with Thermostat
		▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required
		****includes panel fabrication, assembly, wiring, & factory testing****

Item	Qty	Description
		Instrumentation to include: ▪ Pressure Transmitter (P-CRE PIT-61)
11	1	**EAST LUGONIA WELL #3 [RTU-36]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ (2) 8-Channel AI Modules ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****Includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Level Transmitter (W-ELU3 LT-41) ▪ Pressure Transmitter (W-ELU3 PIT-61) ▪ Pressure Switch (W-ELU3 PSH-61) ▪ Flow Transmitter (W-ELU3 FIT-71) ▪ (2) Intrusion Switches (W-ELU3 ZS-92 & ZS-93)
12	1	**EAST LUGONIA WELL #4 [RTU-37]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors)

Item	Qty	Description
		▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ (2) 8-Channel AI Modules ▫ 4-Channel AO Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ (2) Level Transmitters (W-ELU4 LT-41 & LIT-51) ▪ Pressure Transmitter (W-ELU4 PIT-61) ▪ Pressure Switch (W-ELU4 PSH-61) ▪ Chlorine Analyzer (W-ELU4 AIT-81) ▪ (2) Intrusion Switches (W-ELU4 ZS-92 & ZS-93)
13	1	**EAST LUGONIA WELL #6 [RTU-38]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay

Item	Qty	Description

		▪ EMI/RFI Power Line Filter
		▪ 24VDC Power Supply
		▪ (2) 12VDC Backup Batteries & Charger
		▪ Modicon M340 PLC
		  ▫ 8-Slot Backplane
		  ▫ Power Supply
		  ▫ Processor Module
		  ▫ (2) 16-Point DI Modules
		  ▫ 16-Point DO Module
		  ▫ (2) 8-Channel AI Modules
		  ▫ Screw Terminal Strips & Slot Covers as required
		▪ C-more 12" Touchscreen OIT
		▪ MDS Orbit 900MHz Remote Radio
		  ▫ Yagi Directional Antenna
		  ▫ Lightning Arrestor
		  ▫ Coaxial Cable as required
		  ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*)
		  ▫ Cable Grounding & Weatherproofing
		▪ 5-Port Unmanaged Ethernet Switch
		▪ GFCI Convenience Receptacle
		▪ Service Light with Switch
		▪ Fan Kit with Filtered Louvers
		▪ Condensation Heater with Thermostat
		▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required
		****includes panel fabrication, assembly, wiring, & factory testing****
		
		Instrumentation to include:
		▪ (2) Level Transmitters (W-ELU6 LT-41 & LIT-51)
		▪ Pressure Transmitter (W-ELU6 PIT-61)
		▪ Flow Transmitter (W-ELU6 FIT-71)
		▪ Chlorine Analyzer (W-ELU6 AIT-81)

14	1	**HOG CANYON WELL #2 [RTU-39]**
		Control Panel to include:
		▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure
		  ▫ Dimensions: 60"H x 30"W x 18"D
		  ▫ Single Section Configuration (Exterior & Dead-Front Doors)
		  ▫ 3-Point Door Latch with Pad-Lockable Hasp
		  ▫ Panel Top & Rear Sunshades
		  ▫ Backpan per Layout
		  ▫ Exterior Powder Coated Camel Tan
		▪ Circuit Breakers as required
		▪ Power Failure Relay
		▪ EMI/RFI Power Line Filter
		▪ 24VDC Power Supply
		▪ (2) 12VDC Backup Batteries & Charger
		▪ Modicon M340 PLC
		  ▫ 8-Slot Backplane
		  ▫ Power Supply
		  ▫ Processor Module
		  ▫ (2) 16-Point DI Modules

Item	Qty	Description
		▫ 16-Point DO Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** **Radio Panel to include:** ▪ Wall-Mount NEMA 3R Aluminum Enclosure ▫ Dimensions: 20"H x 20.5"W x 12"D ▫ Single Section Configuration ▫ Single-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Front Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated Autumn White ▪ Circuit Breaker ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ Filtered Louvers ▪ DIN Rail, Terminal Blocks, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Level Transmitter (W-HOG2 LT-41) ▪ Pressure Transmitter (W-HOG2 PIT-61) ▪ Pressure Switch (W-HOG2 PSH-61) ▪ Flow Transmitter (W-HOG2 FIT-71)
15	1	**MADEIRA WELL [RTU-40]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply

Item	Qty	Description

		▪ (2) 12VDC Backup Batteries & Charger
		▪ Modicon M340 PLC
		  ▫ 8-Slot Backplane
		  ▫ Power Supply
		  ▫ Processor Module
		  ▫ (2) 16-Point DI Modules
		  ▫ 16-Point DO Module
		  ▫ (2) 8-Channel AI Modules
		  ▫ Screw Terminal Strips & Slot Covers as required
		▪ C-more 12" Touchscreen OIT
		▪ MDS Orbit 900MHz Remote Radio
		  ▫ Yagi Directional Antenna
		  ▫ Lightning Arrestor
		  ▫ Coaxial Cable as required
		  ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*)
		  ▫ Cable Grounding & Weatherproofing
		▪ 5-Port Unmanaged Ethernet Switch
		▪ GFCI Convenience Receptacle
		▪ Service Light with Switch
		▪ Fan Kit with Filtered Louvers
		▪ Condensation Heater with Thermostat
		▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required
		****includes panel fabrication, assembly, wiring, & factory testing****
		
		Instrumentation to include:
		▪ Level Transmitter (W-MAD LT-41)
		▪ Pressure Transmitter (W-MAD PIT-61)
		▪ Pressure Switch (W-MAD PSH-61)
		▪ Flow Meter (W-MAD FIT-71)
		▪ (4) Intrusion Switches (W-MAD ZS-92, ZS-93A, ZS-93B, & ZS-93C)

16	1	**MAGUET WELL #2 [RTU-41]**
		Motor Control Center to include:
		▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure
		  ▫ 480VAC, 200A, 3-Phase, 35kAIC
		  ▫ Dimensions: 60"H x 108"W x 20"D
		  ▫ (4) Sections: Metering / Power Distribution, ATS (*Future*), Pump Controls, & RTU
		  ▫ 3-Point Door Latches with Pad-Lockable Hasps
		  ▫ Panel Top Sunshade
		  ▫ Backpans per Layout
		  ▫ Powder Coated Camel Tan
		▪ Provisions for 200A SCE Utility Meter
		▪ 200A Main Disconnect Breaker
		▪ 3-Pole Power Distribution Block
		▪ 5kVA Transformer
		▪ 12-Circuit Panelboard
		▪ Well Pump Motor MCP Breaker
		▪ NEMA Size 3 FVNR Starter
		▪ Control Power Transformer
		▪ Set of Pump Controls & Pilot Devices

Item	Qty	Description
		▫ HOA Switch ▫ Push Buttons ▫ Indicator Lights ▫ Elapsed Time Meter ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ (2) 8-Channel AI Modules ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacles ▪ Service Lights with Switches ▪ Fan Kits with Filtered Louvers ▪ Condensation Heaters with Thermostats ▪ DIN Rails, Terminal Blocks, Distribution Breakers, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ (2) Level Transmitters (W-MAG2 LT-41 & LIT-51) ▪ Pressure Transmitter (W-MAG2 PIT-61) ▪ Pressure Switch (W-MAG2 PSH-61) ▪ Flow Transmitter (W-MAG2 FIT-71) ▪ Chlorine Analyzer (W-MAG2 AIT-81) ▪ (4) Intrusion Switches (W-MAG2 ZS-92, ZS-93A, ZS-93B, & ZS-93C) Arc Flash Risk Assessment to include: ▪ Electrical Equipment Data Collection ▪ Arc Flash Report ▫ Single-Line Diagram ▫ Fault & Short Circuit Analysis ▫ Overcurrent Protection Device Coordination Study ▫ Electrical Equipment Evaluation ▫ Electrical Hazards Mitigation Analysis ▫ Arc Flash Incident Energy Levels & PPE Requirements ▪ Electrical Equipment Safety Labels (Arc Flash & Shock Hazards)
17	1	**MENTONE ACRES WELL #2 [RTU-42]**

Item	Qty	Description
		Motor Control Center to include: ▪ Pad-Mount Exterior NEMA 3R Weather Wrap Galvanized Steel Enclosure ▫ Dimensions: 90"H x 140"W x 32"D ▫ (2) Weather Wrap Sections ▫ 3-Point Door Latches with Pad-Lockable Hasps ▫ Panel Top Sunshade ▫ Powder Coated Camel Tan ▪ Pad-Mount Interior NEMA 1 Galvanized Steel Enclosure ▫ 480VAC, 800A, 3-Phase, 35kAIC ▫ (4) Sections: Metering, Power Distribution, Pump Controls, & RTU ▫ Section Depth: 20" ▫ Backpans per Layout ▪ Provisions for 800A SCE Utility Meter ▪ 800A Main Disconnect Breaker ▪ 3-Pole Power Distribution Block ▪ 10kVA Transformer ▪ 12-Circuit Panelboard ▪ Pump/RVSS Thermal Magnetic Circuit Breaker ▪ 300HP ABB PSTX Reduced Voltage Soft Starter with Door-Mount HIM ▪ Control Power Transformer ▪ Set of Pump Controls & Pilot Devices ▫ HOA Switch ▫ Push Buttons ▫ Indicator Lights ▫ Elapsed Time Meter ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ (2) 8-Channel AI Modules ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacles ▪ Service Lights with Switches ▪ Fan Kits with Filtered Louvers ▪ Condensation Heaters with Thermostats ▪ DIN Rails, Terminal Blocks, Distribution Breakers, Fuses, Relays,

Item	Qty	Description
		Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** <u>Instrumentation</u> to include: ▪ Level Transmitter (W-MEN2 LT-41) ▪ Pressure Transmitter (W-MEN2 PIT-61) ▪ Flow Transmitter (W-MEN2 FIT-71) ▪ Intrusion Switch (W-MEN2 ZS-92) <u>Arc Flash Risk Assessment</u> to include: ▪ Electrical Equipment Data Collection ▪ Arc Flash Report ▫ Single-Line Diagram ▫ Fault & Short Circuit Analysis ▫ Overcurrent Protection Device Coordination Study ▫ Electrical Equipment Evaluation ▫ Electrical Hazards Mitigation Analysis ▫ Arc Flash Incident Energy Levels & PPE Requirements ▪ Electrical Equipment Safety Labels (Arc Flash & Shock Hazards)
18	1	**<u>MENTONE & CRAFTON VALVE VAULT [RTU-85]</u>** **<u>Control Panel</u> to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated <u>Camel Tan</u> ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ 16-Point DI Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 7" Touchscreen OIT ▪ MDS Orbit 900MHz <u>Remote</u> Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers

Item	Qty	Description
		▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** <u>Instrumentation</u> to include: ▪ (2) Pressure Transmitters (V-MEN PIT-61 & PIT-62) ▪ (2) Flow Meters (V-MEN FIT-71 & FIT-72)
19	1	**<u>MILL CREEK WELL #2 [RTU-43]</u>** **<u>Control Panel</u> to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Backpan per Layout ▫ Exterior Powder Coated <u>Camel Tan</u> ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz <u>Access Point</u> Radio ▫ Omni Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ Cellular Modem ▪ 8-Port Managed Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** <u>Power Distribution Equipment</u> to include: ▪ 5kVA Mini Power Zone (*480V-120/240V, 1-Phase*) <u>Instrumentation</u> to include: ▪ Level Transmitter (W-MIL2 LT-41)

Item	Qty	Description
		▪ Pressure Switch (W-MIL2 PSH-61) ▪ Flow Transmitter (W-MIL2 FIT-71) ▪ Intrusion Switch (W-MIL2 ZS-92)
20	1	**MILL CREEK WELL #2A [RTU-44]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Power Distribution Equipment to include: ▪ 5kVA Mini Power Zone (*480V-120/240V, 1-Phase*) Instrumentation to include: ▪ Level Transmitter (W-MIL2A LT-41) ▪ Pressure Switch (W-MIL2A PSH-61) ▪ Flow Transmitter (W-MIL2A FIT-71)
21	1	**MILL CREEK WELL #4 [RTU-45]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure

Item	Qty	Description
		▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Power Distribution Equipment to include: ▪ 5kVA Mini Power Zone (*480V-120/240V, 1-Phase*) Instrumentation to include: ▪ Level Transmitter (W-MIL4 LT-41) ▪ Pressure Switch (W-MIL4 PSH-61) ▪ Flow Transmitter (W-MIL4 FIT-71) ▪ Intrusion Switch (W-MIL4 ZS-92)
22	1	**MUNI WELL [RTU-47]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout

Item	Qty	Description
		▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Interposing Relays & Current Loop Isolators/Splitters as required (*duplication of site monitored signals*) ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ (2) 8-Channel AI Modules ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Level Transmitter (W-MUN LT-41) ▪ Pressure Transmitter (W-MUN PIT-61) ▪ Pressure Switch (W-MUN PSH-61) ▪ Intrusion Switch (W-MUN ZS-92)
23	1	**NEW YORK STREET WELL [RTU-58]** **Control Panel to include:** ▪ Wall-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 36"H x 30"W x 16"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ (2) Single-Point Door Latches with Pad-Lockable Hasps ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC

Item	Qty	Description
		▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Level Transmitter (W-NYS LT-41) ▪ Pressure Transmitter (W-NYS PIT-61) ▪ Pressure Switch (W-NYS PSH-61) ▪ Flow Meter (W-NYS FIT-71) ▪ Intrusion Switch (W-NYS ZS-92)
24	1	**ORANGE STREET WELL [RTU-50]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ (2) 8-Channel AI Modules ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT

Item	Qty	Description
		▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Level Transmitter (W-ORA LT-41) ▪ Pressure Transmitter (W-ORA PIT-61) ▪ Flow Meter (W-ORA FIT-72) ▪ Intrusion Switch (W-ORA ZS-92)
25	1	**REDLANDS HEIGHTS WELL [RTU-51]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 72"H x 36"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 480/120VAC Safety Barrier ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ 3kVA Transformer ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (2) 16-Point DI Modules ▫ 16-Point DO Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ 8-Port Managed Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, &

Item	Qty	Description
		Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** **<u>Radio Panel</u> to include:** ▪ Wall-Mount NEMA 3R Aluminum Enclosure ▫ Dimensions: 20"H x 20.5"W x 12"D ▫ Single Section Configuration ▫ Single-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Front Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated <u>Autumn White</u> ▪ Circuit Breakers as required ▪ MDS Orbit 150MHz <u>Remote</u> Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit ▫ Cable Grounding & Weatherproofing ▪ Cellular Modem ▫ Omni Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit ▫ Cable Grounding & Weatherproofing ▪ Filtered Louvers ▪ DIN Rail, Terminal Blocks, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** **<u>I/O Radio Panel</u> to include:** ▪ Wall-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 30"H x 24"W x 12"D ▫ Single Section Configuration ▫ (2) Single-Point Door Latches with Pad-Lockable Hasps ▫ Backpan per Layout ▫ Exterior Powder Coated <u>Camel Tan</u> ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ MDS Orbit 150MHz <u>Remote</u> Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ Moxa Ethernet Remote I/O Module ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Filtered Louvers ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, &

Item	Qty	Description
		Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** <u>Antenna Mast</u> to include: ▪ 30' Universal Aluminum Tower with 4' Base (*Foundation & Installation by Others*) ▪ Tower & Base Hinged Assembly (*mast fold down capability*) <u>Instrumentation</u> to include: ▪ Level Transmitter (W-RED LT-41) ▪ Flow Transmitter (W-RED FIT-71)
26	1	**<u>REES WELL [RTU-52]</u>** **<u>Control Panel</u> to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 72"H x 30"W x 18"D ▫ Single Section Configuration ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Backpan per Layout ▫ Exterior Powder Coated <u>Camel Tan</u> ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ (3) 16-Point DI Modules ▫ 16-Point DO Module ▫ (3) 8-Channel AI Modules ▫ 4-Channel AO Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz <u>Remote</u> Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** <u>Instrumentation</u> to include: ▪ Level Transmitter (W-REE LT-41)

Item	Qty	Description
		▪ (4) Pressure Transmitters (W-REE PIT-61, PIT-62, PIT-63A, & PIT-63B) ▪ (3) Differential Pressure Transmitters (W-REE DPIT-64A, DPIT-64B, & DPIT-65) ▪ (3) Intrusion Switches (W-REE ZS-84, ZS-92, & ZS-93)
27	1	**<u>TATE WATER TREATMENT PLANT</u>** <u>Main PLC Control Panel Retrofit</u> to include: ▪ Modicon M580 PLC (Main) ▫ 2-Rack Configuration with X80 Backplane Expander Kit — 12-Slot Backplane — 8-Slot Backplane ▫ (2) AC Power Supplies ▫ M580 Level 2 CPU ▫ (2) 16-Point Digital Input Modules (AC) ▫ (2) 32-Point Digital Input Modules (DC) ▫ (2) 16-Point Digital Output Modules (Relay/NO) ▫ (3) 8-Channel Analog Input Modules (Isolated) ▫ (3) 4-Channel Analog Output Modules (Isolated) ▫ Removable Terminal Blocks, Prewired Cables, & Spare Slot Covers as required ▪ 8-Port Managed Ethernet Switch ▪ EMI/RFI Power Line Filter ▪ 1500VA Uninterruptable Power Supply ▪ 24VDC Power Supply ▪ DIN Rails, Terminal Blocks, Circuit Breakers, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes prefabrication, assembly, wiring, & factory testing**** <u>RIO-1 Panel Retrofit</u> to include: ▪ Modicon X80 Remote I/O (Drop 1) ▫ 8-Slot Backplane ▫ AC Power Supply ▫ X80 Ethernet I/O Drop Adapter ▫ 32-Point Digital Input Module (DC) ▫ 16-Point Digital Output Module (Relay/NO) ▫ 8-Channel Analog Input Module (Isolated) ▫ (2) 4-Channel Analog Output Modules (Isolated) ▫ Removable Terminal Blocks, Prewired Cables, & Spare Slot Covers as required ▪ EMI/RFI Power Line Filter ▪ 1500VA Uninterruptable Power Supply ▪ 24VDC Power Supply ▪ DIN Rails, Terminal Blocks, Circuit Breakers, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes prefabrication, assembly, wiring, & factory testing**** <u>RIO-2 Panel Retrofit</u> to include: ▪ Modicon X80 Remote I/O (Drops 2 & 3) ▫ 3-Rack Configuration with X80 Backplane Expander Kit — (2) 12-Slot Backplanes — 8-Slot Backplane ▫ (3) AC Power Supplies

Item	Qty	Description
		▫ (2) X80 Ethernet I/O Drop Adapters ▫ (14) 16-Point Digital Input Modules (AC) ▫ (4) 16-Point Digital Output Modules (DC) ▫ (5) 8-Channel Analog Input Modules (Isolated) ▫ (6) 4-Channel Analog Output Modules (Isolated) ▫ Removable Terminal Blocks, Prewired Cables, & Spare Slot Covers as required ▪ EMI/RFI Power Line Filter ▪ 1500VA Uninterruptable Power Supply ▪ (2) 24VDC Power Supplies ▪ DIN Rails, Terminal Blocks, Circuit Breakers, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes prefabrication, assembly, wiring, & factory testing****
28	1	**<u>WABASH & I-10 PRESSURE MONITOR [RTU-92]</u>** **<u>Control Panel</u> to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 72"H x 36"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 480/120VAC Safety Barrier ▫ Splash Guard ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated <u>Camel Tan</u> ▪ 3kVA Transformer ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ 16-Point DI Module ▫ 16-Point DO Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 7" Touchscreen OIT ▪ Cellular Modem ▪ 8-Port Managed Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** <u>Instrumentation</u> to include: ▪ Pressure Transmitter (P-WAB PIT-61)

Item	Qty	Description
29	1	**WELL #34 [RTU-53]** **Control Panel to include:** ▪ Wall-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 36"H x 30"W x 16"D ▫ Single Section Configuration ▫ (2) Single-Point Door Latches with Pad-Lockable Hasps ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay ▪ EMI/RFI Power Line Filter ▪ 24VDC Power Supply ▪ (2) 12VDC Backup Batteries & Charger ▪ Modicon M340 PLC ▫ 8-Slot Backplane ▫ Power Supply ▫ Processor Module ▫ 16-Point DI Module ▫ 8-Channel AI Module ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 7" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Pressure Transmitter (W-WELL34 PIT-61) ▪ Chlorine Analyzer (W-WELL34 AIT-81) ▪ (2) Intrusion Switches (W-WELL34 ZS-92 & ZS-93)
30	1	**WELL #38 [RTU-56]** **Control Panel to include:** ▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure ▫ Dimensions: 60"H x 30"W x 18"D ▫ Single Section Configuration (Exterior & Dead-Front Doors) ▫ 3-Point Door Latch with Pad-Lockable Hasp ▫ Panel Top & Rear Sunshades ▫ Backpan per Layout ▫ Exterior Powder Coated Camel Tan ▪ Circuit Breakers as required ▪ Power Failure Relay

Item	Qty	Description

		▪ EMI/RFI Power Line Filter
		▪ 24VDC Power Supply
		▪ (2) 12VDC Backup Batteries & Charger
		▪ Modicon M340 PLC
		  ▫ 8-Slot Backplane
		  ▫ Power Supply
		  ▫ Processor Module
		  ▫ (2) 16-Point DI Modules
		  ▫ 16-Point DO Module
		  ▫ (2) 8-Channel AI Modules
		  ▫ Screw Terminal Strips & Slot Covers as required
		▪ C-more 12" Touchscreen OIT
		▪ MDS Orbit 900MHz Remote Radio
		  ▫ Yagi Directional Antenna
		  ▫ Lightning Arrestor
		  ▫ Coaxial Cable as required
		  ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*)
		  ▫ Cable Grounding & Weatherproofing
		▪ 5-Port Unmanaged Ethernet Switch
		▪ GFCI Convenience Receptacle
		▪ Service Light with Switch
		▪ Fan Kit with Filtered Louvers
		▪ Condensation Heater with Thermostat
		▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required
		****includes panel fabrication, assembly, wiring, & factory testing****
		
		Instrumentation to include:
		▪ Level Transmitter (W-WELL38 LT-41)
		▪ Pressure Transmitter (W-WELL38 PIT-61)
		▪ Pressure Switch (W-WELL38 PSH-61)
		▪ Flow Meter (W-WELL38 FIT-72)
		▪ (4) Intrusion Switches (W-WELL38 ZS-92, ZS-93, ZS-94, & ZS-95)

31	1	**WELL #39 [RTU-57]**
		Control Panel to include:
		▪ Pad-Mount NEMA 3R Galvanized Steel Enclosure
		  ▫ Dimensions: 60"H x 30"W x 18"D
		  ▫ Single Section Configuration (Exterior & Dead-Front Doors)
		  ▫ 3-Point Door Latch with Pad-Lockable Hasp
		  ▫ Backpan per Layout
		  ▫ Exterior Powder Coated Camel Tan
		▪ Circuit Breakers as required
		▪ Power Failure Relay
		▪ EMI/RFI Power Line Filter
		▪ 24VDC Power Supply
		▪ (2) 12VDC Backup Batteries & Charger
		▪ Modicon M340 PLC
		  ▫ 8-Slot Backplane
		  ▫ Power Supply
		  ▫ Processor Module
		  ▫ (2) 16-Point DI Modules

Item	Qty	Description
		▫ 16-Point DO Module ▫ (2) 8-Channel AI Modules ▫ Screw Terminal Strips & Slot Covers as required ▪ C-more 12" Touchscreen OIT ▪ MDS Orbit 900MHz Remote Radio ▫ Yagi Directional Antenna ▫ Lightning Arrestor ▫ Coaxial Cable as required ▫ Pole Mounting Kit (*Antenna Mast/Pole supplied by Others*) ▫ Cable Grounding & Weatherproofing ▪ 5-Port Unmanaged Ethernet Switch ▪ GFCI Convenience Receptacle ▪ Service Light with Switch ▪ Fan Kit with Filtered Louvers ▪ Condensation Heater with Thermostat ▪ DIN Rails, Terminal Blocks, Fuses, Relays, Wires, Ground Bus Bar, & Nameplates/Labels as required ****includes panel fabrication, assembly, wiring, & factory testing**** Instrumentation to include: ▪ Level Transmitter (W-WELL39 LT-41) ▪ Pressure Transmitter (W-WELL39 PIT-61) ▪ Pressure Switch (W-WELL39 PSH-61) ▪ Flow Transmitter (W-WELL39 FIT-71) ▪ Flow Meter (W-WELL39 FIT-72) ▪ (4) Intrusion Switches (W-WELL39 ZS-92, ZS-93, ZS-94, & ZS-95)
32	Lot	**Professional Services to include:** ▪ Project Management ▫ project initiation, contract administration, schedule of values, decision & submittal logs, project scheduling & coordination, planning & resource loading, and payment applications & billings ▪ Engineering ▫ engineered bill of materials, engineered shop drawings, equipment schematics, engineered submittals, technical data, as-built documentation, and project records ▫ Tate Water Treatment Plant — review with the City the latest as-installed drawings revised by TESCO (*T-42335XA*) for the Main, RIO-1, and RIO-2 PLC control panels at the Tate WTP and determine the I/O points to be integrated with the new PLC hardware; identify new, remaining, and to be removed I/O ▪ PLC/OIT Programming ▫ program each local M340 PLC and C-more OIT based on the monitoring/control requirements of each site — coordinate technical workshops with the City as required to fully define individual site process controls ▫ utilize program standards developed during Phase 1 of the City's CIP Project No. 71349 (*T-37335X1/3*)

Item	Qty	Description
		▫ Tate Water Treatment Plant — conduct a technical workshop with the City to redefine the control logic required of the new PLC hardware and to be programmed to the M580 and X80 I/O platform — coordinate with the Project Engineer and the City to confirm the updated I/O list and requirements for each control panel — program the new M580 PLC as required of the Tate WTP process control areas and according to the logic requirements defined through the technical workshop — provide the SCADA Programmer with a revised I/O list and mapping of the PLC registers to facilitate the reassignment of SCADA tags — verify the newly developed PLC program functions properly and correctly executes automated control of the plant processes ▪ <u>SCADA Programming</u> ▫ modify the existing Wonderware InTouch SCADA application hosted at the HAWC and Tate WTP facilities as required to conform with the screen/graphics standards developed during the Phase 1 project ▫ verify the SCADA tag database aligns with the registers of the new M340 PLCs ▫ Tate Water Treatment Plant — reassign the Wonderware InTouch SCADA tags as required to accommodate the upgraded PLC program at the Tate WTP — modify the SCADA tag database as required to align with the updated I/O points — implement the required SCADA updates and modifications across both Wonderware InTouch applications hosted at the HAWC (*primary*) and Tate WTP (*secondary*) facilities — verify communications are maintained between the Wonderware SCADA system and the upgraded M580 PLC platform ▪ <u>Networking/Communications/Telemetry</u> ▫ configure each radio and cellular modem required for establishing communications with the existing high-speed backbone network ▫ test and verify that the new radio/cellular links communicate reliably ▫ Tate Water Treatment Plant — assist with any protocol conversions required to maintain communications between the PLC and SCADA networks — configuration of the managed Ethernet switch to be equipped with the main PLC control at the Tate WTP ▪ <u>Field Service / Product Startup</u>

Item	Qty	Description
		▫ product quality review, verification of installation, parameter/configuration adjustments as required, software upload/download as required, instrument/device signal spanning, function checks, and startup ▫ Tate Water Treatment Plant — retrofit the new M580 and X80 I/O PLC hardware within the existing Main, RIO-1, and RIO-2 control panels at the Tate WTP — rewire between the new PLC hardware and existing panel terminal blocks as required of the updated I/O layout ▪ <u>Onsite Training</u> ▪ <u>O&M Manuals</u>
33	Lot	**Electrical Contractor (Hydrotech Electric) Installation Services to include:** ▪ selective electrical demolition as depicted on the engineered plans/drawings ▪ disposal of equipment not salvaged by the City ▪ installation of TESCO-furnished equipment as depicted on the drawings, including the following: ▫ MCCs ▫ Mini Power Zones ▫ Wall-Mount RTU Panels ▫ Pedestal/Pad-Mount RTU Panels ▫ Radio Panels ▫ Pressure Switches, Limit Switches, Level Transmitters, & Pressure Transmitters ▫ Yagi & Omni Antennas ▪ stainless steel stanchions for electrical boxes and enclosures furnished by Hydrotech Electric ▪ conduits, boxes, and wiring as depicted on the drawings ▪ temporary signal wiring to the existing MOSCAD RTUs as required ▪ grounding system as indicated on the drawings or as required by local codes and NEC ▪ excavation, backfill, and compaction for equipment and conduit installations as required ▪ concrete pads as required for the new MCCs and RTU pedestals ▪ saw cutting, removal, and replacement of concrete as required for equipment and conduit installations ▪ foundation construction for TESCO-furnished 30' tower at Redlands Heights Well ▪ supply and install of (1) 25' antenna pole for Mill Creek Well 2A with concrete foundation ▪ supply and install of (27) 15' tall, 2" diameter GRC antenna masts ▪ assistance with startup, commissioning, and testing of TESCO-furnished equipment
34	Lot	**Mechanical Contractor (Schuler Constructors) Installation Services to include:** ▪ installation of TESCO-furnished flow meters and pressure/level instrumentation ▪ supply and installation of (9) Cla-Val control valves on pump-to-

Item	Qty	Description
		waste pipelines, including valve limit/position switches ▪ supply and installation of (2) AUMA motorized actuators and valves on pump-to-waste pipelines, including valve limit/position switches ▪ supply and installation of (2) check valves on discharge pipelines ▪ relocate (3) existing check valves on discharge pipelines ▪ 3/4" taps and 3000lb carbon steel half couplings as required of pipeline valves and TESCO-furnished instrumentation ▪ concrete pads and pipe supports as required for instrumentation installs and pipeline modifications ▪ loose flanges, nuts, bolts, and gaskets as required of the new control valve installations
35	Lot	**Payment & Performance Bond (2-Year Project Duration)**

Premium for Contract Term Subject to
Adjustments Based on Final Contract Price

Bond No. CA4128396
Premium $38,433.00

EXHIBIT "B"

LABOR AND MATERIAL BOND

Whereas, the City of Redlands, State of California, and TESCO Controls, Inc. (hereinafter designated as "Principal") have entered into an agreement (the "Agreement") whereby Principal agrees to CIP Water Distribution SCADA System Upgrade (the "Work"), which said agreement, dated December 7, 2021, and titled as "Agreement to Perform Non-Professional Services for Improvement to Public Builds and Grounds" is hereby referred to and made a part hereof; and

Whereas, under the terms of the Agreement, Principal is required before commencing the performance of the Work, to file a good and sufficient Labor and Material bond with the City of Redlands to secure the claims to which reference is made in Title 3 (commencing with Section 9550) of Part 6 of Division 4 of the Civil Code of the State of California.

Now, therefore, said Principal and the undersigned as corporate surety, are held firmly bound unto the City and all contractors, subcontractors, laborers, material men and other persons employed in the performance of the Agreement and referred to in the aforesaid Code of Civil Procedure in the sum of five million seventy two thousand two hundred dollars ($5,072,200) for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, that said surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees, including reasonable attorneys' fees, incurred by the City in successfully enforcing such obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall insure to the benefit of any and all persons, companies and corporations entitled to file claims under Title 3 (commencing with Section 9550) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect.

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition.

In witness whereof, this instrument has been duly executed by the Principal and surety above named, on December 2, 2021.

(SEAL)
Tesco Controls, Inc.
(Contractor)
(Signature) SHAIN THOMAS, CEO

(SEAL)
Great American Insurance Company
(Surety)
BY:
(Signature) Elizabeth Collodi, Attorney-in-Fact

Address:
301 E Fourth Street
Cincinnati, OH 45202

Telephone(530) 895-1010

(Seal and Notarial Acknowledgment of Surety)

L:\ca\djm\Agreements\Tesco Controls Agreement.NPS-2.2.FY21-0044.doc.jn

Issued in duplicate original

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Sacramento)

On December 3, 2021 before me, Allison K Hunter, Notary Public
(insert name and title of the officer)

personally appeared Shain Thomas, CEO,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature (Seal)

ALLISON K. HUNTER
Notary Public - California
Sacramento County
Commission # 2357076
My Comm. Expires May 11, 2025

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Sacramento)

On December 2, 2021 before me, Hunter Smithson, Notary Public
(insert name and title of the officer)

personally appeared Elizabeth Collodi,
who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity(~~ies~~), and that by ~~his~~/her/~~their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

HUNTER SMITHSON
COMM. # 2372866
NOTARY PUBLIC CALIFORNIA
COUNTY OF SACRAMENTO
Comm. Expires AUG 29, 2025
ARS3 ARS3

Signature _____ **(Seal)**

GREAT AMERICAN INSURANCE COMPANY®

Administrative Office: 301 E 4TH STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740

The number of persons authorized by this power of attorney is not more than 24

No. 0 21673

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name				Address	Limit of Power
JOHN HOPKINS	JENNIFER LAKMANN	KRISTIE PHILLIPS	JASON MARCH	ALL OF CHICO,CALIFORNIA	ALL
ELIZABETH COLLODI	BRAD ESPINOSA	CLAUDINE GORDIN	MATTHEW FOSTER		$100,000,000
SARA WALLISER	JESSICA MONIUX	MICHAEL K. FEENEY	SARAH OTTO		
RENEE RAMSEY	DEANNA QUINTERO	SAMANTHA WATKINS	MARY COLLINS		
JOHN J. WEBER	K. COREY WARD	BILL RAPP	PAULA SENNA		
STEVEN L. WILLIAMS	MARISSA ROBINSON	TONY CLARK	PAMELA SEY		

This Power of Attorney revokes all previous powers issued on behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 28TH day of JULY, 2021.

Attest

GREAT AMERICAN INSURANCE COMPANY

Assistant Secretary

Divisional Senior Vice President

MARK VICARIO (877-377-2405)

STATE OF OHIO, COUNTY OF HAMILTON - ss:

On this 28TH day of JULY, 2021, before me personally appeared MARK VICARIO, to me known, being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is a Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.

SUSAN A KOHORST
Notary Public
State of Ohio
My Comm. Expires
May 18, 2025

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated June 9, 2008.

RESOLVED: That the Divisional President, the several Divisional Senior Vice Presidents, Divisional Vice Presidents and Divisonal Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

CERTIFICATION

I, STEPHEN C. BERAHA, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of June 9, 2008 have not been revoked and are now in full force and effect.

Signed and sealed this 2nd day of December, 2021.

Assistant Secretary

EXHIBIT "C"

PRICE AND FEE BID

Phase 2 (Fiscal Year 2021-2022)

2330 Booster Pump Station	$134,050.00
Airport Well #1	$289,600.00
Airport Well #2	$152,950.00
Chicken Hill Well	$196,950.00
Church Street Well	$130,400.00
Coolie Hat Flow Monitor	$45,850.00
Crafton Well	$211,750.00
Hog Canyon Well #2	$135,500.00
Madeira Well	$152,850.00
Maguet Well #2	$242,600.00
Mentone Acres Well #2	$254,550.00
Mill Creek Well #2	$155,700.00
Mill Creek Well #2A	$155,500.00
Orange Street Well	$164,550.00
Rees Well	$210,700.00
Tate Water Treatment Plant	$373,300.00
Well #38	$166,900.00
Well #39	$171,500.00
Contingency (10%) *	$334,520.00
PHASE 2 SUBTOTAL:	**$3,679,720.00**

Phase 3 (Fiscal Year 2022-2023)

Agate Well #1	$133,600.00
California Street Well	$128,100.00
Crescent & Crown Pressure Monitor	$72,250.00
East Lugonia Well #3	$149,050.00
East Lugonia Well #4	$158,300.00
East Lugonia Well #6	$155,150.00
Mentone & Crafton Valve Vault	$100,650.00
Mill Creek Well #4	$162,800.00
Muni Well	$155,850.00
New York Street Well	$125,050.00
Redlands Heights Well	$199,000.00
Wabash & I-10 Pressure Monitor	$86,500.00
Well #34	$100,700.00
Contingency (10%) *	$172,700.00
PHASE 3 SUBTOTAL:	**$1,899,700.00**
GRAND TOTAL (Phases 2 & 3):	**$5,579,420.00**

* *Contingency (10%): Contingency will be used for unforeseen work not covered within all other tasks shall be made at the contract lump sum price and shall constitute full compensation for all labor, material, equipment, and incidentals required. Unforeseen work must be approved by the City staff before doing any work, and pay estimate shall be negotiated based on unit price already established with the proposal for this project. Any work required that is outside of the proposed cost, shall be performed based on time & material (T&M) basis and T&M cost shall be negotiated and approved by the City staff prior to performing the work. Unforeseen work will be paid in each billing cycle with a percentage of the lump sum cost included in the bid. This item may or may not be spent entirely.*

EXHIBIT "D"

WORKERS' COMPENSATION INSURANCE CERTIFICATION

Every employer, except the State, shall secure the payment of compensation in one or more of the following ways:

A. By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this State.

B. By securing from the Director of Industrial Relations, a certificate of consent to self-insure, either as an individual employer, or as one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees.

CHECK ONE

_X_ I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work and activities required or permitted under this Agreement. (Labor Code §1861).

_____ I affirm that at all times, in performing the work and activities required or permitted under this Agreement, I shall not employ any person in any manner such that I become subject to the workers' compensation laws of California. However, at any time, if I employ any person such that I become subject to the workers' compensation laws of California, immediately I shall provide the City with a certificate of consent to self-insure, or a certification of workers' compensation insurance.

I certify under penalty of perjury under the laws of the State of California that the information and representations made in this certificate are true and correct.

TESCO CONTROLS, INC.

By: _____ Date: 12/3/2021

Shain Thomas, CEO

City Council Meeting **I. 14.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Approve the request for commercial vendors and the temporary closure of 5th Street for the Stronger Together Now Holiday Community Drive within Ed Hales Park on November 19, 2022, and determination that the event is categorically exempt from environmental review pursuant to Section 15311 of the State's guidelines implementing the California Environmental Quality Act (Assistant City Manager Boatman)

MOTION(S):

If the City Council determines that the request is appropriate, the following motions are provided:

I move that the City Council determine that this event is categorically exempt from environmental review pursuant to Section 15311 of the State's guidelines implementing the California Environmental Quality Act, and approve commercial vendors and the temporary closure of 5th Street for the Stronger Together Now Holiday Community Drive within Ed Hales Park on November 19, 2022.

RECOMMENDATION:

Staff recommends that the City Council direct staff accordingly related to the street closure request of 5th Street and the request for commercial vendors for the Holiday Community Drive event hosted by Stronger Together Now on November 19, 2022, within Ed Hales Park.

DISCUSSION:

The Facilities and Community Services Department manages the administration and issuance of permits for special events held in public areas of the City. Upon issuing a special event permit, the event may take place contingent on the event organizer paying the required fees. The City recognizes the value of partnering

with non-profit agencies and organizations to provide services beneficial to the community.

The non-profit organization, Stronger Together Now (STN), has hosted other events in Redlands and is requesting to hold the Holiday Community Drive on Saturday, November 19, 2022, at Ed Hales Park. The event will be held from 2:00 to 6:00 p.m. STN is requesting to have 42 commercial vendors at the event and temporarily close 5th Street for the purposes of accommodating a portion of the vendors. The event is intended to raise funds that will be used for the inclusive parks project.

STN is requesting a temporary street closure of 5th Street from Redlands Boulevard to E. State Street between the hours of 2:00 a.m. to 6:00 p.m. for the set-up and dismantling of the event. In addition, they are requesting to have commercial vendors with various sales of shirts, merchandise, artwork and food. City Council approval is required for the event because the Municipal Code prohibits commercial activity within city parks and also does not permit special events to take place within a city street. The City Council has approved commercial activity within parks for non-profit events in the past. Therefore, the Council's approval is needed for this aspect of the request.

Should the City Council elect to approve the event, the following conditions of approval will apply:

- The event will be contained within the park perimeter and along N. 5th Street, between Redlands Blvd and E. State St;
- All commercial vendors shall have a current City of Redlands business license to participate in the event; and
- The event shall comply with all County of San Bernardino Health Permit regulations.

ALTERNATIVES:

The City Council may elect to deny the event.

STRATEGIC PLAN:

Priority A- Quality of Life, Strategic Objective 1. Beautification, Arts, and Culture. Enhance community events to better reflect Redlands' diversity and demographics.

SUBMITTED BY:
Chris Boatman, Assistant City Manager

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Janice McConnell, Assistant City Manager

PREPARED BY:
Larry Alms, Administrative Assistant II

Fiscal Impact

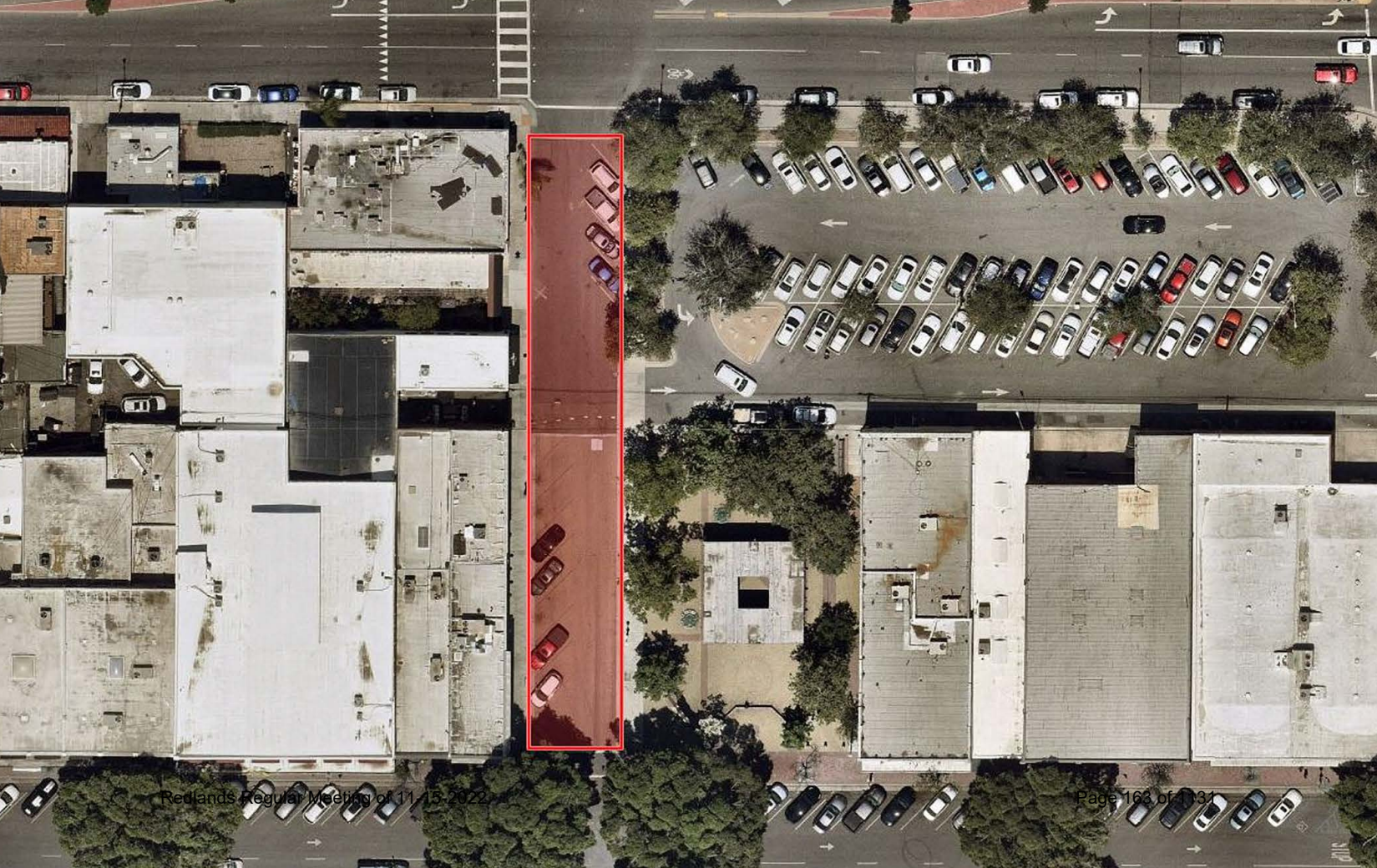
Fiscal Year: FY 2022-23

Discussion:

If the event is approved, the applicant will pay the park reservation fee and any other applicable fees associated with the event.

Attachments

STN St. Closure11.19.22



City Council Meeting **I. 15.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Approve the professional services agreement with Step Up on Second, Inc. for homeless support services for an amount not-to-exceed $130,000, approve the professional services agreement with The Youth Hope Foundation for homeless support services for an amount not-to-exceed $70,000, and determine that the services provided are exempt from environmental review pursuant to Section 15061 (b)(3) of the State's guidelines implementing the California Environmental Quality Act (Assistant City Manager Boatman)

MOTION(S):

If the City Council determines the staff recommendation is appropriate, the following motions are provided:

1. I move that the City Council determine approval of the professional services agreements and the provision of homeless support services are exempt from environmental review pursuant to Section 15061(b)(3) of the State's guidelines implementing the California Environmental Quality Act;

2. I move to approve the professional services agreement with Step Up on Second, Inc. for an amount not-to-exceed $130,000; and

3. I move to approve the professional services agreement with The Youth Hope Foundation for an amount not-to-exceed $70,000.

RECOMMENDATION:

Staff recommends that the City Council award a professional services agreement to Step Up on Second, Inc. for an amount not-to-exceed $130,000 and award a professional services agreement to The Youth Hope Foundation for an amount not-to-exceed $70,000. Staff further recommends City Council determine approval of the professional services agreements and the provision of

homeless support services are exempt from environmental review pursuant to Section 15061(b)(3) of the State's guidelines implementing the California Environmental Quality Act.

DISCUSSION:

According to the annual San Bernardino 2022 Point in Time Count (PIT Count) report, Redlands has 184 homeless persons living on the streets within the City. Per the Department of Housing and Urban Development (HUD), a person is considered homeless only when they lack a fixed, regular, and adequate nighttime residence and resides in one of the following places: 1) places not meant for human habitation, such as cars, parks, sidewalks, and abandoned buildings; 2) an emergency shelter; 3) transitional housing for homeless persons and who originally came from the streets or emergency shelter; or 4) a HUD-defined Safe Haven.

In an effort to provide linkage to services such as shelter, transitional housing, healthcare, employment, and food resources, the implementation of a street homeless outreach program has begun. Outreach or “Street Outreach” has proven to be one of the most effective ways of assisting unhoused persons in receiving services, reaching housing, and gaining independence. According to the Homelessness Policy Research Institute, 76% of homeless veterans do not seek healthcare and other services without being approached by outreach teams (Homelessness Policy Research Institute, 2019).

The initial amount of $200,000 will allow the City’s Street Outreach Program to run for a period of 12 months. Additionally, by contracting with local nonprofits for outreach, services can be provided to a wider array of homeless individuals and families by leveraging resources for more in-person “street” contact to those that may lack access to technology or otherwise seek services. Furthermore, service providers would be able to connect homeless persons with the Coordinated Entry System (CES) and Homeless Management Information System (HMIS) by conducting VI-SPDAT housing assessments internally or using an external partner agency.

In March 2022, staff advertised a request for proposal for the Street Outreach Program. On August 30th, 2022, staff received and opened the following two (2) proposals:

Proposal Summary Report	
Consultant	
1. Step Up on Second, Inc., Santa Monica, CA	$130,000
2. The Youth Hope Foundation, Redlands, CA	$70,000

Proposals were reviewed by staff, who identified Step Up on Second, Inc., and The Youth Hope Foundation as qualified consultants. Therefore, staff recommends awarding a professional services agreement to Step Up, Inc. for an amount not-to-exceed $130,000 as well as awarding a professional services agreement to The Youth Hope Foundation for an amount not-to-exceed $70,000. Approval of the professional services agreement is determined to be categorically exempt from environmental review in accordance with Section 15061(b)(3) of the State's guidelines implementing the California Environmental Quality Act.

ALTERNATIVES:

City Council may deny the staff recommendation or request changes to the agreements.

STRATEGIC PLAN:

Strategic Objective 4. Homelessness - Develop methods to reduce and prevent homelessness.

SUBMITTED BY:
Chris Boatman, Assistant City Manager

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager
Danielle Garcia, Management Services/Finance Director

PREPARED BY:
David Rabindranath, Homeless Solutions Coordinator

Fiscal Impact

Fiscal Year:	2022-2024
Revenue Generating:	N
Appropriation Required Y/N:	Y
Amount:	$200,000
Budgeted Y/N:	Y
Discussion:	

Funding for this will come from the City Homeless Outreach Program as approved by City Council on July 5, 2022; Agenda Item No. I.4. This item designated $200,000 from the Coronavirus State and Local Fiscal Recovery Funds (SLFRF) grant award received by the City for the purpose of funding the Homeless Street Outreach Program. These appropriations have been included in the FY 2023-24 Biennial Budget.

Attachments

A. Agreement - Step Up on Second, Inc.

B. Agreement - The Youth Hope Foundation

AGREEMENT TO PERFORM PROFESSIONAL SERVICES

This agreement for the provision of Homeless Outreach Services ("Agreement") is made and entered in this 15th day of November 2022 ("Effective Date"), by and between the City of Redlands, a municipal corporation ("City") and Step Up on Second, Inc., a California Nonprofit Corporation ("Consultant"). City and Consultant are sometimes individually referred to herein as a "Party" and, together, as the "Parties." In consideration of the mutual promises contained herein, City and Consultant agree as follows:

ARTICLE 1 – ENGAGEMENT OF CONSULTANT

1.1 City hereby engages Consultant to provide Homeless Outreach Services services for City (the "Services").

1.2 The Services shall be performed by Consultant in a professional manner, and Consultant represents that it has the skill and the professional expertise necessary to provide the Services to City at a level of competency presently maintained by other practicing professional consultants in the industry providing like and similar types of Services.

ARTICLE 2 – SERVICES OF CONSULTANT

2.1 The Services that Consultant shall perform are more particularly described in Exhibit "A," titled "Scope of Services," which is attached hereto and incorporated herein by this reference.

2.2 Consultant shall comply with applicable federal, state and local laws and regulations in the performance of this Agreement including, but not limited to, any applicable State prevailing wage laws.

ARTICLE 3 – RESPONSIBILITIES OF CITY

3.1 City designates David Rabindranath, Homeless Solutions Coordinator, as City's representative with respect to performance of the Services, and such person shall have the authority to transmit instructions, receive information, interpret and define City's policies and decisions with respect to performance of the Services.

ARTICLE 4 – PERFORMANCE OF SERVICES

4.1 Consultant shall perform and complete the Services in a prompt and diligent manner.

The term of this Agreement shall be for a period of one (1) year commencing as of the Effective Date, unless terminated earlier as provided herein.

4.2 If Consultant's Services include deliverable electronic visual presentation materials, such materials shall be delivered in a form, and made available to City, consistent with City

Council-adopted policy for the same. It shall be the obligation of Consultant to obtain a copy of such policy from City staff.

ARTICLE 5 – PAYMENTS TO CONSULTANT

5.1 Compensation: Total compensation for Consultant's performance of the Services shall not exceed the amount of one hundred and thirty thousand dollars ($130,000).

5.2 Consultant shall submit monthly invoices to City describing the Services performed during the preceding month. Consultant's invoices shall include a brief description of the Services performed, the dates the Services were performed, the number of hours spent and by whom, and a description of reimbursable expenses related to the Services. City shall pay Consultant no later than thirty (30) days after receipt and approval by City of Consultant's invoice.

5.3 Any notice or other communication required, or which may be given, pursuant to this Agreement, shall be in writing. Any such notice shall be deemed delivered (i) on the date of delivery in person; (ii) five (5) days after deposit in first class registered mail, with return receipt requested; (iii) on the actual delivery date if deposited with an overnight courier; or (iv) on the date sent by facsimile or electronic mail transmission (including PDF), if confirmed with a copy sent contemporaneously by first class, certified, registered or express mail; in each case properly posted and fully prepaid to the appropriate address set forth below, or such other address as a Party may provide notice in accordance with this section:

CITY:

City Clerk
City of Redlands
35 Cajon Street
P.O. Box 3005 (mailing)
Redlands, CA 92373
jdonaldson@cityofredlands.org
Phone: (909) 798-7531

CONSULTANT:

Gregory Coffos, Director of Housing
Step Up on Second, Inc.
1328 Second Street
Santa Monica, CA 90401
GCoffos@stepup.org
Phone: 909-601-1181

ARTICLE 6 – INSURANCE AND INDEMNIFICATION

6.1 The following insurance coverage required by this Agreement shall be maintained by Consultant for the duration of its performance of the Services. Consultant shall not perform any Services unless and until the required insurance listed below is obtained by Consultant. Consultant shall provide City with certificates of insurance and endorsements evidencing such insurance prior to commencement of the Services. Insurance policies shall include a provision prohibiting cancellation or modification of the policy except upon thirty (30) days prior written notice to City.

A. Workers' Compensation and Employer's Liability insurance in the amount that meets

statutory requirements with an insurance carrier acceptable to City, or certification to City that Consultant is self-insured or exempt from the workers' compensation laws of the State of California. Consultant shall execute and provide City with Exhibit "B," titled "Workers' Compensation Insurance Certification," which is attached hereto and incorporated herein by this reference, prior to performance of the Services.

B. Comprehensive General Liability insurance with carriers acceptable to City in the minimum amount of One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) aggregate, for public liability, property damage and personal injury is required. City shall be named as an additional insured and such insurance shall be primary and non-contributing to any insurance or self-insurance maintained by City.

C. Consultant shall secure and maintain professional liability insurance throughout the term of this Agreement in the amount of One Million Dollars ($1,000,000) per claim made.

D. Business Auto Liability coverage, with minimum limits of One Million Dollars ($1,000,000) per occurrence, combined single limit bodily injury liability and property damage liability. This coverage shall include all Consultant owned vehicles used in connection with Consultant's provision of the Services, hired and non-owned vehicles, and employee non-ownership vehicles. City shall be named as an additional insured and such insurance shall be primary and non-contributing to any insurance or self-insurance maintained by City.

E. Consultant is expressly prohibited from assigning or subcontracting any of the Services without the prior written consent of City. In the event of mutual agreement by the Parties to assign or subcontract a portion of the Services, Consultant shall add such assignee or subcontractor as an additional insured to the insurance policies required hereby and provide City with the insurance endorsements prior to any Services being performed by the assignee or subcontractor.

6.2 Consultant shall defend, indemnify and hold harmless City and its elected and appointed officials, employees and agents from and against any and all claims, losses or liability, including attorneys' fees, arising from injury or death to persons or damage to property occasioned by any negligent act or omission by, or the willful misconduct of, Consultant, or its officers, employees and agents in performing the Services.

ARTICLE 7 – CONFLICTS OF INTEREST

7.1 Consultant covenants and represents that it does not have any investment or interest in any real property that may be the subject of this Agreement or any other source of income, interest in real property or investment that would be affected in any manner or degree by the performance of Consultant's Services. Consultant further covenants and represents that in the performance of its duties hereunder, no person having any such interest shall perform any Services under this Agreement.

7.2 Consultant agrees it is not a designated employee within the meaning of the Political Reform Act because Consultant:

A. Does not make a governmental decision whether to:

(i) approve a rate, rule or regulation, or adopt or enforce a City law;
(ii) issue, deny, suspend or revoke any City permit, license, application, certification, approval, order or similar authorization or entitlement;
(iii) authorize City to enter into, modify or renew a contract;
(iv) grant City approval to a contract that requires City approval and to which City is a party, or to the specifications for such a contract;
(v) grant City approval to a plan, design, report, study or similar item;
(vi) adopt, or grant City approval of, policies, standards or guidelines for City or for any subdivision thereof.

B. Does not serve in a staff capacity with City and in that capacity, participate in making a governmental decision or otherwise perform the same or substantially the same duties for City that would otherwise be performed by an individual holding a position specified in City's Conflict of Interest Code under Government Code section 87302.

7.3 In the event City determines that Consultant must disclose its financial interests, Consultant shall complete and file a Fair Political Practices Commission Form 700, Statement of Economic Interests, with the City Clerk's office pursuant to the written instructions provided by the City Clerk.

ARTICLE 8 – GENERAL CONSIDERATIONS

8.1 In the event any action is commenced to enforce or interpret any of the terms or conditions of this Agreement the prevailing Party shall, in addition to any costs and other relief, be entitled to the recovery of its reasonable attorneys' fees, including fees for the use of in-house counsel by a Party.

8.2 Consultant shall not assign any of the Services, except with the prior written approval of City and in strict compliance with the terms and conditions of this Agreement. Any assignment or attempted assignment without such prior written consent may, in the sole discretion of City, result in City's immediate termination of this Agreement.

8.3 Consultant is for all purposes under this Agreement an independent contractor and shall perform the Services as an independent contractor. Neither City nor any its agents shall have control over the conduct of Consultant or Consultant's employees, except as herein set forth. Consultant shall supply all necessary tools and instrumentalities required to perform the Services. Assigned personnel employed by Consultant are for its account only, and in no event shall Consultant or personnel retained by it be deemed to have been employed by City or engaged by City for the account of, or on behalf of City. Consultant

shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent, nor shall Consultant have any authority, express or implied, to bind City to any obligation.

8.4 This Agreement may be terminated by City, in its sole discretion, by providing not less than five (5) days prior written notice to Consultant of City's intent to terminate. If this Agreement is terminated by City, an adjustment to Consultant's compensation shall be made, but (1) no amount shall be allowed for anticipated profit or unperformed Services, and (2) any payment due Consultant at the time of termination may be adjusted to the extent of any additional costs to City occasioned by any default by Consultant. Upon receipt of a termination notice, Consultant shall immediately discontinue its provision of the Services and, within five (5) days of the date of the termination notice, deliver or otherwise make available to City, copies (in both hard copy and electronic form, where applicable) of project related data, design calculations, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by Consultant in performing the Services. Consultant shall be compensated on a pro-rata basis for Services completed up to the date of termination.

8.5 Consultant shall maintain books, ledgers, invoices, accounts and other records and documents evidencing costs and expenses related to the Services for a period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant pursuant to this Agreement. Such books shall be available at reasonable times for examination by City at the office of Consultant.

8.6 This Agreement, including the Exhibits incorporated herein by reference, represents the entire agreement and understanding between the Parties as to the matters contained herein, and any prior negotiations, written proposals or verbal agreements relating to such matters are superseded by this Agreement. Except as otherwise provided for herein, any amendment to this Agreement shall be in writing, approved by City and signed by City and Consultant.

8.7 This Agreement shall be governed by and construed in accordance with the laws of the State of California, without regard to its conflicts of laws provisions. The Parties agree that all actions or proceedings arising in connection with this Agreement shall be tried and litigated only in the state courts located in San Bernardino County, California, and the federal courts located in Riverside County, California.

8.8 If one or more of the sentences, clauses, paragraphs or sections contained in this Agreement is declared invalid, void or unenforceable by a court of competent jurisdiction, the same shall be deemed severable from the remainder of this Agreement and shall not affect, impair or invalidate the remaining sentences, clauses, paragraphs or sections contained herein, unless to do so would deprive a Party of a material benefit of its bargain under this Agreement.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, duly authorized representatives of City and Consultant have signed in confirmation of this Agreement.

CITY OF REDLANDS

By: _____
Paul T. Barich, Mayor

STEP UP ON SECOND, INC.

By: _____
Gregory Coffos, Director of Housing

ATTEST:

_____
Jeanne Donaldson, City Clerk

EXHIBIT "A"

SCOPE OF SERVICES

Provide *up to* 12 months of street homeless outreach services through September 2023. The outreach services performed by the awarded nonprofit(s) will engage the targeted population (homeless) in the City of Redlands, and provide a pathway to available healthcare, mental health services, shelter, transitional housing, substance abuse counseling, permanent housing, veteran services and housing services for a 12-month period.

EXHIBIT "B"

WORKERS' COMPENSATION INSURANCE CERTIFICATION

Every employer, except the State, shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this State.

(b) By securing from the Director of Industrial Relations, a certificate of consent to self-insure, either as an individual employer, or as one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees.

CHECK ONE

_____I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work and activities required or permitted under this Agreement. (Labor Code §1861).

_____I affirm that at all times, in performing the work and activities required or permitted under this Agreement, I shall not employ any person in any manner such that I become subject to the workers' compensation laws of California. However, at any time, if I employ any person such that I become subject to the workers' compensation laws of California, immediately I shall provide the City with a certificate of consent to self-insure, or a certification of workers' compensation insurance.

I certify under penalty of perjury under the laws of the State of California that the information and representations made in this certificate are true and correct.

STEP UP ON SECOND, INC.

By:_____ Date: _____

Gregory Coffos, Director of Housing

AGREEMENT TO PERFORM PROFESSIONAL SERVICES

This agreement for the provision of Homeless Outreach Services ("Agreement") is made and entered in this 15th day of November, 2022 ("Effective Date"), by and between the City of Redlands, a municipal corporation ("City") and The Youth Hope Foundation, a California Nonprofit Corporation ("Consultant"). City and Consultant are sometimes individually referred to herein as a "Party" and, together, as the "Parties." In consideration of the mutual promises contained herein, City and Consultant agree as follows:

ARTICLE 1 – ENGAGEMENT OF CONSULTANT

1.1 City hereby engages Consultant to provide Homeless Outreach Services services for City (the "Services").

1.2 The Services shall be performed by Consultant in a professional manner, and Consultant represents that it has the skill and the professional expertise necessary to provide the Services to City at a level of competency presently maintained by other practicing professional consultants in the industry providing like and similar types of Services.

ARTICLE 2 – SERVICES OF CONSULTANT

2.1 The Services that Consultant shall perform are more particularly described in Exhibit "A," titled "Scope of Services," which is attached hereto and incorporated herein by this reference.

2.2 Consultant shall comply with applicable federal, state and local laws and regulations in the performance of this Agreement including, but not limited to, any applicable State prevailing wage laws.

ARTICLE 3 – RESPONSIBILITIES OF CITY

3.1 City designates David Rabindranath, Homeless Solutions Coordinator, as City's representative with respect to performance of the Services, and such person shall have the authority to transmit instructions, receive information, interpret and define City's policies and decisions with respect to performance of the Services.

ARTICLE 4 – PERFORMANCE OF SERVICES

4.1 Consultant shall perform and complete the Services in a prompt and diligent manner.

The term of this Agreement shall be for a period of one (1) year commencing as of the Effective Date, unless terminated earlier as provided herein.

4.2 If Consultant's Services include deliverable electronic visual presentation materials, such materials shall be delivered in a form, and made available to City, consistent with City

Council-adopted policy for the same. It shall be the obligation of Consultant to obtain a copy of such policy from City staff.

ARTICLE 5 – PAYMENTS TO CONSULTANT

5.1 Compensation: Total compensation for Consultant's performance of the Services shall not exceed the amount of seventy thousand dollars ($70,000). City shall pay Consultant on a time and materials basis up to the not to exceed amount.

5.2 Consultant shall submit monthly invoices to City describing the Services performed during the preceding month. Consultant's invoices shall include a brief description of the Services performed, the dates the Services were performed, the number of hours spent and by whom, and a description of reimbursable expenses related to the Services. City shall pay Consultant no later than thirty (30) days after receipt and approval by City of Consultant's invoice.

5.3 Any notice or other communication required, or which may be given, pursuant to this Agreement, shall be in writing. Any such notice shall be deemed delivered (i) on the date of delivery in person; (ii) five (5) days after deposit in first class registered mail, with return receipt requested; (iii) on the actual delivery date if deposited with an overnight courier; or (iv) on the date sent by facsimile or electronic mail transmission (including PDF), if confirmed with a copy sent contemporaneously by first class, certified, registered or express mail; in each case properly posted and fully prepaid to the appropriate address set forth below, or such other address as a Party may provide notice in accordance with this section:

CITY:

City Clerk
City of Redlands
35 Cajon Street
P.O. Box 3005 (mailing)
Redlands, CA 92373
jdonaldson@cityofredlands.org
Phone: (909) 798-7531

CONSULTANT:

Heidi Mayer, Executive Director
The Youth Hope Foundation
P.O. Box 7803
Redlands, CA 92375
Monica@youthhope.org
Phone: 909-793-2345

ARTICLE 6 – INSURANCE AND INDEMNIFICATION

6.1 The following insurance coverage required by this Agreement shall be maintained by Consultant for the duration of its performance of the Services. Consultant shall not perform any Services unless and until the required insurance listed below is obtained by Consultant. Consultant shall provide City with certificates of insurance and endorsements evidencing such insurance prior to commencement of the Services. Insurance policies shall include a provision prohibiting cancellation or modification of the policy except upon thirty (30) days prior written notice to City.

A. Workers' Compensation and Employer's Liability insurance in the amount that meets statutory requirements with an insurance carrier acceptable to City, or certification to City that Consultant is self-insured or exempt from the workers' compensation laws of the State of California. Consultant shall execute and provide City with Exhibit "B," titled "Workers' Compensation Insurance Certification," which is attached hereto and incorporated herein by this reference, prior to performance of the Services.

B. Comprehensive General Liability insurance with carriers acceptable to City in the minimum amount of One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) aggregate, for public liability, property damage and personal injury is required. City shall be named as an additional insured and such insurance shall be primary and non-contributing to any insurance or self-insurance maintained by City.

C. Consultant shall secure and maintain professional liability insurance throughout the term of this Agreement in the amount of One Million Dollars ($1,000,000) per claim made.

D. Business Auto Liability coverage, with minimum limits of One Million Dollars ($1,000,000) per occurrence, combined single limit bodily injury liability and property damage liability. This coverage shall include all Consultant owned vehicles used in connection with Consultant's provision of the Services, hired and non-owned vehicles, and employee non-ownership vehicles. City shall be named as an additional insured and such insurance shall be primary and non-contributing to any insurance or self-insurance maintained by City.

E. Consultant is expressly prohibited from assigning or subcontracting any of the Services without the prior written consent of City. In the event of mutual agreement by the Parties to assign or subcontract a portion of the Services, Consultant shall add such assignee or subcontractor as an additional insured to the insurance policies required hereby and provide City with the insurance endorsements prior to any Services being performed by the assignee or subcontractor.

6.2 Consultant shall defend, indemnify and hold harmless City and its elected and appointed officials, employees and agents from and against any and all claims, losses or liability, including attorneys' fees, arising from injury or death to persons or damage to property occasioned by any negligent act or omission by, or the willful misconduct of, Consultant, or its officers, employees and agents in performing the Services.

ARTICLE 7 – CONFLICTS OF INTEREST

7.1 Consultant covenants and represents that it does not have any investment or interest in any real property that may be the subject of this Agreement or any other source of income, interest in real property or investment that would be affected in any manner or degree by the performance of Consultant's Services. Consultant further covenants and

represents that in the performance of its duties hereunder, no person having any such interest shall perform any Services under this Agreement.

7.2 Consultant agrees it is not a designated employee within the meaning of the Political Reform Act because Consultant:

A. Does not make a governmental decision whether to:

(i) approve a rate, rule or regulation, or adopt or enforce a City law;
(ii) issue, deny, suspend or revoke any City permit, license, application, certification, approval, order or similar authorization or entitlement;
(iii) authorize City to enter into, modify or renew a contract;
(iv) grant City approval to a contract that requires City approval and to which City is a party, or to the specifications for such a contract;
(v) grant City approval to a plan, design, report, study or similar item;
(vi) adopt, or grant City approval of, policies, standards or guidelines for City or for any subdivision thereof.

B. Does not serve in a staff capacity with City and in that capacity, participate in making a governmental decision or otherwise perform the same or substantially the same duties for City that would otherwise be performed by an individual holding a position specified in City's Conflict of Interest Code under Government Code section 87302.

7.3 In the event City determines that Consultant must disclose its financial interests, Consultant shall complete and file a Fair Political Practices Commission Form 700, Statement of Economic Interests, with the City Clerk's office pursuant to the written instructions provided by the City Clerk.

ARTICLE 8 – GENERAL CONSIDERATIONS

8.1 In the event any action is commenced to enforce or interpret any of the terms or conditions of this Agreement the prevailing Party shall, in addition to any costs and other relief, be entitled to the recovery of its reasonable attorneys' fees, including fees for the use of in-house counsel by a Party.

8.2 Consultant shall not assign any of the Services, except with the prior written approval of City and in strict compliance with the terms and conditions of this Agreement. Any assignment or attempted assignment without such prior written consent may, in the sole discretion of City, result in City's immediate termination of this Agreement.

8.3 Consultant is for all purposes under this Agreement an independent contractor and shall perform the Services as an independent contractor. Neither City nor any its agents shall have control over the conduct of Consultant or Consultant's employees, except as herein set forth. Consultant shall supply all necessary tools and instrumentalities required to perform the Services. Assigned personnel employed by Consultant are for its account

only, and in no event shall Consultant or personnel retained by it be deemed to have been employed by City or engaged by City for the account of, or on behalf of City. Consultant shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent, nor shall Consultant have any authority, express or implied, to bind City to any obligation.

8.4 This Agreement may be terminated by City, in its sole discretion, by providing not less than five (5) days prior written notice to Consultant of City's intent to terminate. If this Agreement is terminated by City, an adjustment to Consultant's compensation shall be made, but (1) no amount shall be allowed for anticipated profit or unperformed Services, and (2) any payment due Consultant at the time of termination may be adjusted to the extent of any additional costs to City occasioned by any default by Consultant. Upon receipt of a termination notice, Consultant shall immediately discontinue its provision of the Services and, within five (5) days of the date of the termination notice, deliver or otherwise make available to City, copies (in both hard copy and electronic form, where applicable) of project related data, design calculations, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by Consultant in performing the Services. Consultant shall be compensated on a pro-rata basis for Services completed up to the date of termination.

8.5 Consultant shall maintain books, ledgers, invoices, accounts and other records and documents evidencing costs and expenses related to the Services for a period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant pursuant to this Agreement. Such books shall be available at reasonable times for examination by City at the office of Consultant.

8.6 This Agreement, including the Exhibits incorporated herein by reference, represents the entire agreement and understanding between the Parties as to the matters contained herein, and any prior negotiations, written proposals or verbal agreements relating to such matters are superseded by this Agreement. Except as otherwise provided for herein, any amendment to this Agreement shall be in writing, approved by City and signed by City and Consultant.

8.7 This Agreement shall be governed by and construed in accordance with the laws of the State of California, without regard to its conflicts of laws provisions. The Parties agree that all actions or proceedings arising in connection with this Agreement shall be tried and litigated only in the state courts located in San Bernardino County, California, and the federal courts located in Riverside County, California.

8.8 If one or more of the sentences, clauses, paragraphs or sections contained in this Agreement is declared invalid, void or unenforceable by a court of competent jurisdiction, the same shall be deemed severable from the remainder of this Agreement and shall not affect, impair or invalidate the remaining sentences, clauses, paragraphs or sections contained herein, unless to do so would deprive a Party of a material benefit of its bargain under this Agreement.

IN WITNESS WHEREOF, duly authorized representatives of City and Consultant have signed in confirmation of this Agreement.

CITY OF REDLANDS

By: _____
Paul T. Barich, Mayor

THE YOUTH HOPE FOUNDATION

By: _____
Heidi Mayer, Executive Director

ATTEST:

_____
Jeanne Donaldson, City Clerk

EXHIBIT "A"

SCOPE OF SERVICES

Provide *up to* 12 months of street homeless outreach services through September 2023. The outreach services performed by the awarded nonprofit(s) will engage the targeted population (homeless) in the City of Redlands, and provide a pathway to available healthcare, mental health services, shelter, transitional housing, substance abuse counseling, permanent housing, veteran services and housing services for a 12-month period.

EXHIBIT "B"

WORKERS' COMPENSATION INSURANCE CERTIFICATION

Every employer, except the State, shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this State.

(b) By securing from the Director of Industrial Relations, a certificate of consent to self-insure, either as an individual employer, or as one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees.

CHECK ONE

_____I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work and activities required or permitted under this Agreement. (Labor Code §1861).

_____I affirm that at all times, in performing the work and activities required or permitted under this Agreement, I shall not employ any person in any manner such that I become subject to the workers' compensation laws of California. However, at any time, if I employ any person such that I become subject to the workers' compensation laws of California, immediately I shall provide the City with a certificate of consent to self-insure, or a certification of workers' compensation insurance.

I certify under penalty of perjury under the laws of the State of California that the information and representations made in this certificate are true and correct.

YOUTHHOPE FOUNDATION

By:_____ Date: _____

Heidi Mayer, Executive Director

City Council Meeting **I. 16.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Adopt Resolution No. 8413 authorizing the execution and delivery of Motor Vehicle Lease Agreements with Toyota Financial Services, and approve the lease of light duty motor vehicles from Toyota Financial Services at the cost of $178,500 annually, for a total amount not to exceed $535,500 over a three-year term (Assistant City Manager Boatman)

MOTION(S):

If the City Council determines that staff's recommendation is appropriate, the following motions are provided:

1. I move to adopt Resolution No. 8413 authorizing the execution and delivery of Motor Vehicle Lease Agreements with Toyota Financial Services; and

2. I move to approve the lease of light duty motor vehicles from Toyota Financial Services at the cost of $178,500 annually for a total amount not to exceed $535,500 over a three-year term.

RECOMMENDATION:

Staff recommends that the City Council approve Resolution No. 8413 authorizing the execution and delivery of Motor Vehicle Lease Agreements with Toyota Financial Services and approve the lease of light duty motor vehicles from Toyota Financial Services at the cost of $178,500 annually for a total amount not to exceed $535,500 over a three-year term.

DISCUSSION:

The City of Redlands Facilities and Community Services Department Equipment Maintenance Division oversees the maintenance of over 470 vehicles. In an effort to ensure the best use of public funds and resources, staff conducted an analysis of alternative vehicle replacement and maintenance programs several

years ago. That analysis supported the conclusion that a structured and methodical vehicle replacement program could best be achieved through leasing light duty fleet vehicles rather than purchasing vehicles outright and in July, 2019, the City Council approved a light-duty vehicle lease and maintenance program with Enterprise Fleet Management. Under this program, staff had anticipated the replacement of 240 vehicles over a five-year period and the first round of vehicle replacements was conducted in 2019. Due to the uncertainty of revenue with the onset of the Covid-19 pandemic in FY 2020-21, staff determined to suspend the second round of vehicle replacement orders. A second round of vehicle replacement orders was placed in 2021. However, due to an unprecedented shortage in materials, there was and continues to be a critical shortage of new vehicles available for purchase. Staff is continuing to partner with Enterprise Fleet Management to continue the lease and maintenance program and expect to receive a limited number of new vehicles this fiscal year.

In an effort to address critical vehicle replacement needs for various departments, staff researched alternatives to vehicle procurement and determined that the lease of specific vehicles from Toyota of Redlands would allow for immediate replacement of vehicles. These vehicles will be leased for a period of three years, at which time, they will be returned to Toyota of Redlands and replaced with vehicles within the existing program with Enterprise Fleet Management. On November 1, 2022, the City Council approved the lease of eight vehicles that were confirmed to be available for lease through Toyota of Redlands. Subsequently, staff received a request to adopt a resolution identifying specific city representatives as authorized to execute the Motor Vehicle Lease Agreements, and complete the attached Certified Resolution and Incumbency Certificate to Lease or Finance form. Resolution No. 8413 attached identifies Chris Boatman, Assistant City Manager, as authorized to execute the lease agreements together with any other associated documents.

There remains a critical need to replace up to 20 vehicles within the Police Department. Toyota has indicated that there is vehicle availability to replace these aging vehicles. The vehicle leases will include Camry, RAV4, Highlander, or other Toyota models, depending on the availability and specific needs of the department divisions. Staff has calculated an not to exceed amount of $535,500 over a three-year term based on the highest possible lease amount for all 20 vehicles. Staff is requesting approval of motor vehicle leases with the specific model to be determined as vehicle availability is confirmed.

ALTERNATIVES:

City Council may elect not to approve the lease of light duty motor vehicles from Toyota Financial Services and provide alternative direction to staff.

STRATEGIC PLAN:

Supports Strategic Plan Priority B - Public Health and Safety and D - Sustainability

SUBMITTED BY:
Chris Boatman, Assistant City Manager

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager
Danielle Garcia, Management Services/Finance Director
Chris Catren, Police Chief

PREPARED BY:
Tricia Swope, Manager, Facilities and Community Services

Fiscal Impact

Fiscal Year: FY 2022-23
Amount: $178,500
Budgeted Y/N: Y
Account No.: 101202
Discussion:
Sufficient funding for the lease of these vehicles is included in the FY 2022-23 and FY 2023-24 Police Department budget as approved by the City Council.

Attachments

Resolution No. 8413
Lease Agreement
Toyota Certified Resolution and Incumbency Certificate

RESOLUTION NO. 8413

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS, CALIFORNIA, AUTHORIZING THE EXECUTION AND DELIVERY OF MOTOR VEHICLE LEASE AGREEMENTS, AND OTHER INSTRUMENTS, AND DETERMINING OTHER MATTERS IN CONNECTION THEREWITH

WHEREAS, the laws of the State of California (the "State") authorize the City of Redlands (the "City"), a duly organized political subdivision and municipal corporation of the State, to purchase, acquire and lease personal property for the benefit of the City and its inhabitants and to enter into any necessary contracts; and

WHEREAS, the City desires to lease and/or finance equipment ("Equipment") from Toyota Financial Services Corporation and/or an authorized Toyota dealer ("Toyota") by entering into certain Closed-End Motor Vehicle Lease Agreements (the "Agreements") with Toyota of Redlands; and

WHEREAS, the City and Toyota desires to formally designate City representatives who shall be authorized to execute and deliver to Toyota an Agreements for individual motor vehicles, together with any other necessary documents in connection with those Agreements;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF REDLANDS AS FOLLOWS:

Section 1. That Christopher Boatman, Assistant City Manager, is authorized, directed, and empowered, on behalf of the City, to (i) sign and deliver to Toyota, and its successors and assigns, the Agreements and any related documents, and (ii) take or cause to be taken all actions he deems necessary or advisable to acquire the Equipment, including the signing and delivery of the Agreements and related documents.

Section 2. That the City Clerk of the City is authorized to attest to this Resolution and affix the seal of the City to the Agreements, this Resolution, and any related documents.

Section 3. That nothing in this Resolution, the Agreements, or any other document imposes a pecuniary liability or charge upon the general credit of the City or against its taxing power, except to the extent that the payments payable under the Agreements are special limited obligations of the City as provided in the Agreements.

Section 4. That a breach of this Resolution, the Agreements, or any related document will not impose any pecuniary liability upon the City or any charge upon its general credit or against its taxing power, except to the extent that the payments payable under the Agreements are special limited obligations of the City as provided in the Agreements.

Section 5. This Resolution shall take effect immediately upon its adoption.

ADOPTED, SIGNED AND APPROVED this 15th day of November 2022.

_____
Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, hereby certify that the foregoing resolution was duly adopted by the City Council at a regular meeting thereof held on the _____ day of _____, 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

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Stock No:2300047

Deal ID:46052

CLOSED-END MOTOR VEHICLE LEASE AGREEMENT CALIFORNIA

TOYOTA FINANCIAL SERVICES SM

1. Parties

Lease Date: 10/04/2022

LESSEE AND CO-LESSEE NAME AND LESSEE'S BILLING ADDRESS
CITY OF REDLANDS
PO BOX 3005
REDLANDS, County of SAN BERNARDINO, CA 92373

LESSOR (DEALER) NAME AND ADDRESS
TOYOTA OF REDLANDS
921 NEW YORK STREET
REDLANDS, CA 92374

VEHICLE GARAGING ADDRESS
N/A

This is a Lease for the Vehicle described below. The words **"you"**, **"your"** and **"yours"** refer to the Lessee and any Co-Lessee. The words **"we"**, **"us"** and **"our"** refer to the Lessor, and after assignment, to the Toyota Lease Trust ("TLT") and any subsequent assignee. Toyota Motor Credit Corporation ("TMCC") will be servicing this Lease on behalf of TLT. By signing this Lease, you agree to lease the Vehicle described below from us under the terms of this Lease, to pay all amounts due and to perform all of your obligations under this Lease.

2. Description of Leased Vehicle

You are leasing from us, and have received in satisfactory condition, the following Vehicle:

Leased Vehicle
2023 Toyota Camry LE Auto

New or Used	Vehicle Identification Number	Primary Use	Odometer Mileage
New	4T1C11AK1PU091004	Business	5

The box below memorializes trade-in, turn-in and other individualized agreements between you and the Lessor (Dealer). Obligations of the Lessor set forth in this box shall be the sole responsibility of the Lessor (Dealer). If this box conflicts with any other section of this Lease, the other section of this Lease shall control.

N/A

"THERE IS NO COOLING OFF PERIOD"

California law does not provide for a "cooling off" or other cancellation period for vehicle leases. Therefore, you cannot later cancel this Lease simply because you change your mind, decided the vehicle costs too much, or wish you had acquired a different vehicle. You may cancel this Lease only with the agreement of the Lessor or for legal cause such as fraud.

Lessee [redacted] A

Co-Lessee N/A A

GAP LIABILITY NOTICE: In the event of theft or damage to the Vehicle that results in a total loss, there may be a GAP between the amount due upon early termination and the proceeds of your insurance settlement and deductible. THIS LEASE PROVIDES THAT YOU ARE LIABLE FOR THE GAP AMOUNT. Optional coverage for the GAP amount may be offered for an additional price.

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CLOSED-END MOTOR VEHICLE LEASE AGREEMENT
CALIFORNIA

TOYOTA FINANCIAL SERVICES SM

FEDERAL CONSUMER LEASING ACT SEGREGATED DISCLOSURES

3. Amount Due at Lease Signing or Delivery (Itemized in Section 7 below)	4. Monthly Payments	5. Other Charges (not part of your Monthly Payment)	6. Total of Payments (The amount you will have paid by the end of the Lease)
$ 840.23	Your first Monthly Payment of $ 495.48 is due on 10/04/2022, followed by 35 payments of $ 495.48 due on the 4th of each month. The total of your Monthly Payments is: $ 17,837.28	Disposition fee (if you do not purchase the Vehicle) $ 350.00 Total $ 350.00	$ 18,532.03

Itemization of Amount Due at Lease Signing or Delivery

7. Amount Due at Lease Signing or Delivery:

a.	Capitalized Cost Reduction	$ N/A
b.	First Monthly Payment	$ 495.48
c.	Refundable Security Deposit	$ N/A
d.	Title Fees	$ N/A
e.	Registration Fees	$ 127.00
f.	License Fees	$ 179.00
g.	Tax on Capitalized Cost Reduction	$ N/A
h.	Acquisition Fee	$ N/A
i.	Document Processing Fee (Not a Government Fee)	$ N/A
j.	DMV Electronic Filing Fee (Not a Government Fee)	$ 30.00
k.	California Tire Fee	$ 8.75
l.	N/A	$ N/A
m.	N/A	$ N/A
n.	N/A	$ N/A
o.	N/A	$ N/A
p.	Total	$ 840.23

8. How the Amount Due at Lease Signing or Delivery will be Paid:

a. Net Trade-In Allowance
Year N/A Make N/A Model N/A
VIN N/A
(i) Agreed Upon Value $ N/A
(ii) Less: Pay Off $ N/A
(iii) Less: Cash to Lessee $ N/A
Net Trade In [(i) — (ii) — (iii), no less than 0] $ 0.00

b. Rebates and Noncash Credits $ 840.23

c.	N/A	$ N/A
d.	N/A	$ N/A
e.	N/A	$ N/A

f. Amount to be Paid in Cash $ N/A

g. Total $ 840.23

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CALIFORNIA

TOYOTA FINANCIAL SERVICES SM

Your Monthly Payment is determined as shown below

9. Payment Determination

a. Gross Capitalized Cost. The agreed upon value of the Vehicle ($ 27,538.23) and any items you pay over the Lease Term (such as service contracts, insurance, and any outstanding prior credit or lease balance). For an itemization of this amount, see Section 13.	$	28,385.23
b. Capitalized Cost Reduction. The amount of any net trade-in allowance, rebate, noncash credit, or cash you pay that reduces the Gross Capitalized Cost.	– $	N/A
c. Adjusted Capitalized Cost. The amount used in calculating your Base Monthly Payment.	= $	28,385.23
d. Residual Value. The value of the Vehicle at the end of the Lease used in calculating your Base Monthly Payment.	– $	15,200.00
e. Depreciation and any Amortized Amounts. The amount charged for the Vehicle's decline in value through normal use and for other items paid over the Lease Term.	= $	13,185.23
f. Rent Charge. The amount charged in addition to the Depreciation and any Amortized Amounts.	+ $	3,216.60
g. Total of Base Monthly Payments. The Depreciation and any Amortized Amounts plus the Rent Charge.	= $	16,401.83
h. Lease Payments. The number of payments in your Lease.	÷	36
i. Base Monthly Payment.	= $	455.61
j. Monthly Sales/Use Tax.	+ $	39.87
k. N/A	+ $	N/A
l. Total Monthly Payment ("Monthly Payment")	= $	495.48

Early Termination. You may have to pay a substantial charge if you end this Lease early. The charge may be up to several thousand dollars. The actual charge will depend on when the Lease is terminated. The earlier you end the Lease, the greater this charge is likely to be.

10. Excessive Wear and Use

You may be charged for excessive wear based on our standards for normal use and for mileage in excess of 36000 miles over the odometer mileage disclosed on page one, at the rate of $ 0.15 per mile.

11. Purchase Option at the End of Lease Term

You have an option to purchase the Vehicle at the end of the Lease Term for $ 15,200.00.
That amount does not include other charges you may be required to pay pursuant to Section 32.

12. Other Important Terms

Review this Lease for additional information on early termination, purchase options and maintenance responsibilities, warranties, late and default charges, insurance, and any security interest, if applicable.

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Gross Capitalized Cost Itemization and Other Items

13. Itemization of Gross Capitalized Cost

You will pay for the following items over the Lease Term, as part of your Monthly Payment:

a.1. Agreed Upon Value of the Vehicle as equipped at time of signing this Lease		$ 27,538.23
a.2. Agreed Upon Value of each accessory and item of optional equipment the Lessor (Dealer) agrees to add to the Vehicle after signing this Lease:		
i. N/A	+ $	N/A
ii. N/A	+ $	N/A
iii. N/A	+ $	N/A
iv. N/A	+ $	N/A
a.3. Total Agreed Upon Value of the Vehicle	= $	27,538.23
b. Taxes	+ $	N/A
c. Initial Title, License, and Registration Fees	+ $	N/A
d. Outstanding Prior Credit or Lease Balance	+ $	N/A
e. Acquisition Fee	+ $	650.00
f. Document Processing Fee (Not a Government Fee)	+ $	85.00
g. DMV Electronic Filing Fee (Not a Government Fee)	+ $	N/A
h. California Tire Fee	+ $	N/A
i. TIFF	+ $	112.00
j. N/A	+ $	N/A
k. N/A	+ $	N/A
l. N/A	+ $	N/A
m. N/A	+ $	N/A
n. N/A	+ $	N/A
o. N/A	+ $	N/A
p. N/A	+ $	N/A
q. N/A	+ $	N/A
r. N/A	+ $	N/A
s. Gross Capitalized Cost	= $	28,385.23

14. Lease Term and Scheduled Maturity Date

The Lease Term of this Lease is 36 months, and the Scheduled Maturity Date of this Lease is 10/03/2025.

15. Required Insurance

You must provide the following insurance during the Lease Term, with the Lessee and/or Co-Lessee as an insured driver. No other types of insurance are required and **no Required Insurance is provided by us in this Lease**:

a) primary automobile liability insurance with minimum limits for bodily injury or death of

i) $ 15,000.00 for any one person, and

ii) $ 30,000.00 for any one accident, and

iii) $ 5,000.00 for property damage; and

b) physical damage insurance for the full value of the Vehicle, with a maximum deductible of $1,000.

See Section 24 for more information.

You have provided us today with the following insurance information:

UNKNOWN	12345678
Insurance Provider	Policy No.
UNKNOWN	(909) 793-0300
Agent's Name	Agent's Phone No.
N/A	
Agent's Address	

Insurance Coverage Verification by Dealer Employee [redacted] B

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16. Charges for Late/Returned Payments

If we do not receive a full Monthly Payment within 10 days after it is due, you must pay a late payment charge of 5% of the unpaid amount or $10, whichever is greater.

If any payment (including an electronic funds transfer) you make to us is not honored or returned to us for any reason, in addition to any late charges, you may be charged a fee of $25, as permitted by law.

17. Estimated Official Fees and Taxes

This is an estimate of the total amount you will pay over the Lease Term for official and license fees, registration, title, and taxes (including personal property taxes), whether included in your Total Monthly Payment (Section 9.I), the Amount Due at Lease Signing or Delivery (Section 7) or billed separately. The actual total of Official Fees and Taxes may be higher or lower than this estimate depending on the tax rates in effect or the value of the Vehicle at the time a fee or tax is assessed. **This estimate is based on your current address and may increase if you move or if tax rates change. You are responsible for paying any increases.** See Section 27 for additional information.

Estimated Total $ 2,277.49

18. Warranty

If the Vehicle is a new or a demo Vehicle, the Vehicle is subject to the standard new warranty from the manufacturer. If the Vehicle is used, it is not covered by a warranty unless identified below:

☐ Remainder of standard new vehicle warranty from manufacturer
☐ Used vehicle warranty from manufacturer

UNLESS WE MAKE A WRITTEN WARRANTY OR ENTER INTO A SERVICE CONTRACT WITHIN 90 DAYS FROM THE DATE OF THIS LEASE AND EXCEPT AS STATED IN THE PARAGRAPH IMMEDIATELY ABOVE, OR AS OTHERWISE PROVIDED BY LAW, YOU ARE LEASING THIS VEHICLE "AS IS." THERE ARE NO WARRANTIES AS TO THE VEHICLE'S CONDITION, MERCHANTABILITY, SUITABILITY, OR FITNESS FOR A PARTICULAR PURPOSE.

19. Optional Insurance and Other Products

You are not required to buy any of the Optional Insurance or Other Products listed below to enter into this Lease, and they are not a factor in our credit decision. These insurance and other products will not be provided unless the appropriate box is checked, all information is filled in, you sign below, and you are accepted by the Provider. By your signature below, you agree that you have received a notice of the terms of the insurance or product, and you want to obtain the insurance or product for the premium or charge shown. A portion of the premium or charge shown may be retained by the Lessor (Dealer).

☐ **Optional Credit Life Insurance**

N/A
N/A
Insured(s)

$ N/A
Beginning Coverage

N/A
Provider

$ N/A
Premium

Lessee N/A C

Co-Lessee N/A C

☐ **Optional Credit Disability Insurance**

N/A
N/A
Insured(s)

$ N/A
Maximum Monthly Coverage

N/A
Provider

$ N/A
Premium

Lessee N/A D

Co-Lessee N/A D

☐ **Optional Service Contract**

N/A Miles/Coverage, N/A Months

N/A
Provider

$ N/A
Premium or Charge

Lessee N/A E

Co-Lessee N/A E

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☐ **Optional Guaranteed Automobile Protection** (See Section 31)

N/A
Provider

$ N/A
Premium or Charge

Lessee N/A F

Co-Lessee N/A F

☐ **Optional Maintenance Agreement**

N/A
Provider

$ N/A
Premium or Charge

Lessee N/A G

Co-Lessee N/A G

☐ **Optional Excess Wear and Use Protection Plan**

N/A
Provider

$ N/A
Premium or Charge

Lessee N/A H

Co-Lessee N/A H

☐ **Optional Tire and Wheel Protection Plan**

N/A
Provider

$ N/A
Premium or Charge

Lessee N/A I

Co-Lessee N/A I

Total Premiums and Charges $ 0.00

20. Complete Agreement or Modification

By your signature, you acknowledge that this Lease contains the entire agreement for the Lease of this Vehicle. There are no other agreements. Any change to this Lease must be in writing, and signed by you and by us.

Lessee [redacted] J

Co-Lessee N/A J

YOUR OBLIGATIONS DURING THIS LEASE

21. Vehicle Maintenance and Damage

You are responsible for all maintenance, repair, service, and operating expenses of the Vehicle. You agree to keep the Vehicle in the same condition as when you received it, except for reasonable wear, to maintain the Vehicle so that any warranties or similar agreements remain effective and so that it passes all inspections required by law, to follow the owner's manual and maintenance schedule, and to provide us with written proof of such maintenance. You agree to make the Vehicle available to us for inspection during the Lease Term at any reasonable time and place that we request.

22. Prohibited Uses of the Vehicle. You agree that you will not, nor permit others to:

a. use the Vehicle in any illegal manner, in violation of your insurance policy, or without the insurance coverage described in Sections 15 and 24;
b. alter or install any equipment on or in the Vehicle without our written consent. Any accessions to the Vehicle become our property;
c. subject the Vehicle to any lien, seizure or other involuntary transfer;
d. use the Vehicle to transport goods or people for hire;
e. remove the Vehicle from the state where it was first titled, for more than 30 days, without our written consent;

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f. take the Vehicle outside the continental United States (except to Canada or Mexico for less than 30 days, if you have our consent and have provided us with proof of insurance);
g. use the Vehicle in a way that causes the cancellation or suspension of any warranty or other similar protection agreement; or
h. allow anyone else to regularly use the Vehicle without our written consent.

Assigning, subleasing, pledging or permitting a security interest to be created in, or in any other way transferring by you of any interest in the Vehicle or this Lease is strictly prohibited.

23. **Title and Registration.** Legal title to the Vehicle will be in our name and the Vehicle will be registered as we direct. You must promptly pay all title, registration, and license fees.

24. **Required Insurance.** The limits required under state law may not be sufficient for your needs. See your insurance provider for more information. **You may obtain the required coverages through any insurance company, agent, or broker you choose which is reasonably acceptable to us and authorized to do business in the state where the Vehicle is located.** This insurance may be provided through existing policies that you own or control if it otherwise meets all requirements. The insurance policy must be acceptable to us, name Toyota Lease Trust as **additional insured** and **loss payee**, and give us at least 10 days written notice before any cancellation or reduction in coverage. You authorize us to endorse your name(s) on any check or draft from your insurance company for any claim. You must provide us with written proof of this insurance, including a copy of the insurance policy, at any time during the term of this Lease at our request. You agree to release to us all insurance or other proceeds you receive for damages or loss to the Vehicle (including any premium refunds on the Required Insurance) up to the amount you owe us.

    Notice: Liability insurance coverage for bodily injury and property damage caused to others is not included in this Lease.

25. **Payment Obligations.** You may not change or stop your Monthly Payments for any reason, even if the Vehicle is stolen, destroyed, seized by the government, non-operative, experiences any mechanical problem, or does not perform satisfactorily. We may apply each Monthly Payment and each other payment we receive to past due payments, current payment due, late charges, and other amounts due under this Lease in any order we choose, to the extent permitted by law.

26. **Change in Address.** You must notify us in writing within 30 days of any change in your address or the address where the Vehicle is garaged.

27. **Fees Taxes and Fines.** You must promptly pay all official fees and taxes related to the Vehicle and this Lease, including title, license and registration fees, and sales, use, excise and personal property taxes. These amounts may change from time to time based on changes to your address and changes in tax rates. You must also promptly pay all other fees, assessments, charges, costs and fines (collectively "fines") incurred on the Vehicle such as traffic tickets, impounds, towing charges, storage charges and toll violations. Some bills for official fees and taxes may be sent to you for payment. Other bills may be paid by us on your behalf and we will charge you the amount billed to us. If you fail to pay any such amount when billed by us or by a third party, and we elect to pay it, you will reimburse us for the amount paid plus a $10 administrative fee per incident, to the extent permitted by law. In connection with these bills, you give us permission to provide information regarding you and this Lease to the billing authority. You must pay all fees, taxes, assessments, charges, costs and fines incurred on the Vehicle during the Lease Term, even if they are assessed and billed after this Lease has ended. We may charge you an estimated amount for any remaining items at the time this Lease ends. You are responsible for any shortage in this estimate, and we will refund you any excess.

    We are not obligated to apply for any refund or abatement of official fees and taxes, including personal property taxes. If you make a written request that we apply for a refund of an official fee or tax that you paid to us, to which you are entitled, we will file an application for refund. We will send any refund we receive, less all amounts due under this Lease, to you.

    We may pay any title, registration, license fee, tax, assessment, charge, cost or fine which you fail to pay, and charge you the amount paid. You are responsible for any fines or penalties if you fail to pay the bill when due.

28. **Default and Remedies.** To the extent permitted by law, you will be in default if:
    a. you fail to make any payment when it is due;
    b. you fail to keep any other agreement in this Lease;
    c. you provided false or misleading information when applying for this Lease;
    d. you become the subject of a bankruptcy or insolvency proceeding;
    e. the Vehicle is lost, stolen, seized, confiscated, levied upon, or damaged beyond reasonable repair;
    f. you die and there is no surviving co-lessee; or
    g. you fail to return the Vehicle by the Scheduled Maturity Date and do not obtain our written consent to extend the Lease Term.

    If you are in default, we may do any or all of the following, as permitted by law, after giving any legally required notices, and observing any legally required cure or reinstatement periods:
    i. terminate this Lease and your right to use the Vehicle;
    ii. require you to return the Vehicle by allowing us to pick up the Vehicle or making it available to us at any reasonable time and place we specify;
    iii. take possession of the Vehicle by legal process or by self help in any manner not prohibited by law;
    iv. require you to pay the amounts set forth in Section 29;
    v. take any reasonable action to correct your default or to prevent our loss;
    vi. pursue any other remedy allowed by law; and
    vii. require you to pay all of our reasonable expenses for taking these actions and add the amount of our expenses to the amount you owe us under this Lease, including, but not limited to, expenses for repossession, transportation, storage, collection, and legal costs, including reasonable attorneys' fees paid to an attorney who is not our salaried employee, as allowed by applicable law.

    We or our agent may take possession of personal property left in or on the Vehicle, subject to your right to recover such property, if any. We or our agent may store it for you and you will be responsible to pay for this service. If you do not take possession of the personal property, we or our agent may dispose of it as permitted by law.

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ENDING YOUR LEASE

29. Early Termination by Us. We may terminate this Lease at any time if you are in default (see Section 28). If we do, you must return the Vehicle to us, at any reasonable location we specify. In addition, you must pay us, upon demand, the total of the following amounts:

a. the amounts set forth in Section 28(vii); plus
b. all Monthly Payments that have become due and are unpaid at termination; plus
c. all other unpaid amounts then due under this Lease, but not including charges for Excessive Wear and Use and excess mileage (Sections 10 and 34); plus
d. an Early Termination Amount equal to, the difference, if any, between:
   (i) the Adjusted Capitalized Cost as disclosed in Section 9(c); and
   (ii) the sum of (a) all depreciation and other amortized amounts accrued through the date of early termination, calculated in accordance with the constant yield method, and (b) the Realized Value of the Vehicle, as defined below; minus
e. any remaining Refundable Security Deposit (Section 36) or refund we receive from Optional Insurance or Other Products (Section 38).

The "Realized Value" means one of the following: (1) where the Vehicle is a total loss as a result of a theft or damage, and you maintain the Required Insurance, the amount of any applicable insurance deductible owed by you plus the proceeds of the settlement of the insurance claim, unless we agree to a higher amount; (2) the wholesale appraised value, if you elect to have an appraisal, which you may obtain, at your own expense, from a professional independent appraiser agreed to by you and us (the appraisal must be completed at least three days before the scheduled valuation or disposal date of the Vehicle, as provided by a notice that we will provide to you); (3) if we choose to retain ownership of the Vehicle for use or to lease the Vehicle to a subsequent lessee, the wholesale value as specified in the current edition of a recognized used vehicle guide such as Kelley Blue Book or the N.A.D.A. Official Used Car Guide; or, (4) under all other circumstances, the price paid for the Vehicle at disposition.

30. Early Termination by You. You may terminate this Lease at any time prior to the scheduled end of this Lease. If you terminate this Lease early, are not in default, and do not elect to purchase the Vehicle in accordance with Section 32, you must return the Vehicle to us, at any reasonable location we specify, and you must pay us, upon demand:

a. all Monthly Payments that have become due and are unpaid at termination; plus
b. all other unpaid amounts then due under this Lease, but not including charges for Excessive Wear and Use and excess mileage (Sections 10 and 34); plus
c. the Early Termination Amount determined pursuant to Section 29(d) above; minus
d. any remaining Refundable Security Deposit (Section 36) or refund we receive from Optional Insurance or Other Products (Section 38).

If you terminate this Lease early, are in default (see Section 28), and do not elect to purchase the Vehicle in accordance with Section 32, you must return the Vehicle to us, at any reasonable location we specify, and you must pay us, upon demand, the amounts specified in Section 29 above.

Other terms apply if you terminate this Lease and purchase the Vehicle or trade in the Vehicle in connection with the purchase or lease of another vehicle.

31. Effect of Guaranteed Automobile Protection on Early Termination. If the Vehicle is subject to damage or theft resulting in a total loss, and you have purchased and received Guaranteed Automobile Protection in connection with this Lease, and you have met the conditions set forth in the Guaranteed Automobile Protection agreement, then your Early Termination obligations set forth in Sections 29 or 30, as applicable, will not include the charges set forth in Section 29(d), the disposition fee shown in Section 5, and the charges for Excessive Wear and Use and excess mileage (Sections 10 and 34).

32. Your Option to Purchase the Vehicle. You may purchase the Vehicle at any time during this Lease or at the Scheduled Maturity Date (unless a governmental agency has seized the Vehicle and instructed us not to release the Vehicle to you). The price to purchase the Vehicle at the Scheduled Maturity Date is the Purchase Option Price shown in Section 11, plus, the amount described in subsections 32(a), 32(b) and 32(c), below. The price to purchase the Vehicle during the Lease Term is the total of:

a. all unpaid Monthly Payments that have become due, and other amounts due and unpaid under this Lease, except the disposition fee shown in Section 5 and charges for Excessive Wear and Use and excess mileage (Sections 10 and 34); plus,
b. all official fees and taxes, and documentary fees charged in connection with the purchase; plus,
c. all amounts necessary to meet any legal selling requirements; plus,
d. the difference, if any, between the Adjusted Capitalized Cost as disclosed in Section 9(c) and all depreciation and other amortized amounts accrued through the date of early termination, calculated in accordance with the constant yield method.

As part of a like-kind exchange program, TMCC has engaged TQI Exchange, LLC ("TQI") as a qualified intermediary. Lessor and Lessee are hereby notified that TMCC has assigned to TQI its rights (but not its obligations) in any agreement for the sale of the Vehicle at Lease termination.

33. Obligations if You Do Not Purchase the Vehicle at the Scheduled Maturity Date. At the Scheduled Maturity Date, you must return the Vehicle to us at any reasonable location we specify, and pay us, upon demand, the following amounts:

a. all Monthly Payments and other amounts due under this Lease, including the disposition fee shown in Section 5; plus
b. all official fees and taxes charged in connection with this Lease termination; plus
c. all Excessive Wear and Use charges described in Section 34; plus
d. all excess mileage charges disclosed in Section 10. You will not receive a refund if you do not use all of the mileage set forth in Section 10.

If you keep possession of the Vehicle past the Scheduled Maturity Date, you agree to continue to pay the Monthly Payments. However, continued payment does not cure any default, including a default under Section 28(g), and does not permit you to keep the Vehicle unless you obtain our advance written consent to extend the Lease Term. You agree to pay us any damages we suffer because you failed to return the Vehicle at the end of this Lease.

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34. **Excessive Wear and Use Charges.** If you do not purchase the Vehicle at any time during this Lease or at the Scheduled Maturity Date, or if you elect to terminate this Lease pursuant to the terms of this Lease and except to the extent paid by the Excess Wear and Use Protection Plan; if you purchased and received that Plan, you are responsible for the estimated cost to repair damage (including diagnostic cost, if any) to the Vehicle which is excessive wear and use (even if we do not repair the Vehicle).

    Excessive wear and use may include but is not limited to certain damage such as:

    a. inoperative mechanical and electrical parts;
    b. damage (including but not limited to, damage to the engine) due to your failure to maintain the Vehicle pursuant to the terms of this Lease;
    c. damage to the body, lights, trim or paint;
    d. damaged, broken or missing glass;
    e. torn, damaged or stained interior;
    f. damage from flood, water, hail or sand;
    g. damage from removal of equipment or signs placed on the Vehicle;
    h. missing equipment, parts and accessories, including missing keys or remote entry devices; or
    i. any wear or damage to any part of the tire that doesn't allow the tire to meet the manufacturer's guidelines for safe operation, or any mismatched tire sizes in a set of 5 (or 4 with any emergency spare if the Vehicle was equipped with one).

ADDITIONAL INFORMATION

35. **Communication Consent.** You agree that we, TMCC and any affiliates, agents and service providers or any assignees of the foregoing (individually and collectively, as applicable in this Communications Consent section, "we," "our" or "us") may call you, leave you a voice, prerecorded or artificial voice message or send you a text, email or other electronic message for any purpose related to your Accounts with us, our products and services, or surveys or research (each a "Communication"). We may include your personal information in a Communication and conduct a Communication using an automated dialing system and any contact information we have for you, including a cell phone number. We will not charge you for a Communication but your service provider may do so. You understand and agree, we may always communicate with you in any manner permissible by law that does not require your consent.

36. **Refundable Security Deposit.** Your security deposit may be used by us to pay amounts that you owe under this Lease. If you elect to purchase your Vehicle, your security deposit may be applied by us to the amount you owe to purchase your Vehicle. Any unused security deposit will be returned to you at the end of the Lease Term. No interest, increase, or profits will be paid to you on the security deposit, unless required by law.

37. **Assignment.** We can assign our interest in this Lease and in the Vehicle without your consent. After you sign this Lease, we will assign it to TLT and you agree to make all payments to TMCC as servicer for TLT.

38. **Refund of Optional Insurance or Other Products.** If any optional insurance or product included in the Gross Capitalized Cost is cancelled before the end of the Lease Term, or if you are not accepted by the Provider for a requested optional insurance or product, we will credit any refunds to your account.

39. **Indemnity.** You agree to indemnify us from, and to pay on our behalf, any claim or loss (including damages, costs, expenses and legal fees) which arises from or is related to the possession, condition, use, maintenance or operation of the Vehicle. Any insurance we provide is secondary to the Required Insurance.

40. **Credit Information.** You authorize us, at any time, to investigate any information provided on your credit application in order to establish, maintain and collect on this Lease account, including to order one or more credit reports in connection with establishing, maintaining or collecting this Lease account. You authorize us to provide information concerning your account to credit reporting agencies and others who may lawfully receive such information. You may notify us if you believe that we have reported any inaccurate information about your Lease account to a consumer reporting agency. Send your written notice describing the specific inaccuracies to us at the following address: P.O. Box 9786, Cedar Rapids, IA 52409-9786.

41. **Liability.** Lessee and Co-Lessee are jointly and severally liable. If there is both a Lessee and Co-Lessee signing this Lease, we can release, waive, or delay the enforcement of our rights against one of you, without affecting our rights as to the other one(s).

42. **Notices.** All Lessee and Co-Lessee correspondence and notices will be sent to the Lessee's Billing Address shown on this Lease, unless you give us a different address. If the Co-Lessee provides a separate address, delinquency notices will be provided to such address in addition to the Billing Address. All correspondence and notices will be given solely in TMCC's name as the servicer, and will be given on behalf of TLT.

43. **Choice of Law and Severability.** You agree that the law of the state in which this Lease is signed applies to this Lease unless prohibited by law. If certain provisions of this Lease violate the law, those provisions will be void, and the rest of this Lease will be enforceable.

44. **No Waiver by Us.** If we delay or refrain from exercising our rights or remedies under this Lease, we do not lose those rights or remedies. If we accept late or partial payments from you, we do not waive our right to receive full and timely payments. We may accept payments with "Payment in Full," similar language or other restrictive endorsements without being bound by such language or waiving our rights or remedies.

45. **Odometer Disclosure Statement.** Federal law requires that you disclose the Vehicle's odometer reading to us upon termination of this Lease or transfer of ownership. Failure to complete an Odometer Disclosure Statement, failure to return it to us, or making a false statement therein, may result in fines and/or imprisonment. You will be provided an Odometer Disclosure Statement to complete prior to the termination of this Lease.

46. **Nonapproval of Credit Application. You have the right to return the vehicle and receive a refund of any payments made if the credit application is not approved, unless nonapproval results from an incomplete application or from incorrect information provided by you.**

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CLOSED-END MOTOR VEHICLE LEASE AGREEMENT
CALIFORNIA

TOYOTA FINANCIAL SERVICES SM

47. True Lease; Security Interest. You and we intend that this Lease for all purposes constitutes a "true lease" of the Vehicle, and not a "financed lease" or a secured transaction under the laws of any state. However, if for some reason a court or arbitrator determines that this Lease constitutes a "financed lease" or a secured transaction, you grant us a security interest at that time, to the extent permitted by law, in the Vehicle including any property now or later installed in or affixed to the Vehicle, in all proceeds derived from the Vehicle, in your security deposit, in the proceeds of any insurance relating to persons or property and the proceeds of all Guaranteed Automobile Protection and other optional products, including return of unearned premiums and unearned charges.

48. Electronic Records and Signatures and Conversion to Paper. You agree to use electronic records and electronic signatures to document this contract. Your electronic signatures will have the same effect as signatures on a paper contract.

There will be one authoritative copy of this contract. It will be the electronic copy in a document management system we designate for storing it. We may convert the authoritative copy to a paper original. We will do so by printing one paper copy marked "Original." This paper original will have your electronic signature on it. It will have the same effect as if you had signed it originally on paper.

ARBITRATION

49. Arbitration Provision. You agree that any claims arising from or relating to this Lease or related agreements or relationships, including the validity, enforceability, arbitrability or scope of this Provision, at your or our election, are subject to arbitration. This includes, without limitation, claims in contract, tort, pursuant to statute, regulation, ordinance or in equity or otherwise, and claims asserted by us against you and by you against us, and the following Covered Parties: Toyota Lease Trust, Toyota Motor Credit Corporation, Lexus Financial Services, Toyota Motor Insurance Services, Inc., and/or any of our or its affiliates and/or any of our or their employees, officers, successors, assigns or against any third party providing any product or service in connection with this Lease. Any arbitration shall be administered by either JAMS (its rules may be obtained at any of its many offices nationwide or online at www.jamsadr.com), or any arbitration provider that either party may choose subject to the other's approval, which may not be unreasonably withheld. The applicable rules of the selected arbitration provider shall govern, except that in the event of any inconsistency between those rules and this Provision, this Provision shall prevail. Such claims shall be resolved in accordance with (i) the Federal Arbitration Act (the "FAA"); (ii) the selected arbitration provider's rules and procedures in effect at the time the claim is filed; and (iii) this Provision. Any arbitration hearing at which you appear shall be conducted at a location that is reasonably convenient to where you live. The Arbitrator shall apply applicable substantive law consistent with the FAA (and not any state law concerning arbitration) and shall award such remedies, if any, that would be available in court if arbitration had not been elected. If you cannot afford to pay and cannot obtain a waiver of the fees charged by the Arbitrator or if you believe that such fees are or will be prohibitively expensive or excessive, we and the Covered Parties will entertain in good faith any reasonable written request by you for us and the Covered Parties to pay or reimburse you for all or part of such fees. In addition, we will pay the selected arbitration provider's fees for all claims under $15,000. For claims above that amount, the selected arbitration provider's fee shall be covered equally by the parties. In the event we prevail, we agree not to seek recovery of our attorneys' fees from you. If you prevail and the Arbitrator awards you an amount higher than our last written settlement offer before the Arbitrator was selected, we will pay you double your attorney's fees and the maximum claim that may be brought in small claims court in the county of your billing address. **We, the Covered Parties and you are prohibited from participating in any type of representative action, including a class action or private attorney general action. We, the Covered Parties and you are also prohibited from seeking any relief on a representative or class basis.** You will not be subject to this Provision for any individual claim brought by you in small claims court or your state's equivalent court, unless such claim is transferred, removed or appealed to a different court. IF ANY PARTY ELECTS ARBITRATION WITH RESPECT TO A CLAIM, NEITHER YOU NOR WE NOR ANY COVERED PARTY WILL HAVE THE RIGHT TO LITIGATE THAT CLAIM IN COURT; TO HAVE A JURY TRIAL ON THAT CLAIM; OR TO PARTICIPATE AS A REPRESENTATIVE OR MEMBER OF ANY CLASS OF CLAIMANTS PERTAINING TO SUCH CLAIM. THE ARBITRATOR'S DECISION WILL BE FINAL AND BINDING EXCEPT AS MAY BE PROVIDED IN THE FAA. This Provision will survive your full payment of this Lease; our sale or transfer of this Lease; any repossession of the Vehicle; and your (or our) bankruptcy.

By checking the "opt-in" box and signing below, you agree that at the request of either you or us any controversy or claim between you and us shall be determined by neutral binding arbitration under the Federal Arbitration Act (definitions, terms and conditions described in the Arbitration Provision). IF YOU DO NOT WISH TO BE BOUND BY THE ARBITRATION PROVISION, CHECK THE "OPT-OUT" BOX AND SIGN BELOW. By checking a box and signing below, you agree that you have read and received a copy of the Arbitration Provision.

☒ **OPT IN:** You agree to be bound by the Arbitration Provision.
☐ **OPT OUT:** You do not wish to be bound by the Arbitration Provision.

Lessee [redacted] K

Co-Lessee N/A K

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CALIFORNIA

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CALIFORNIA CREDIT DISABILITY INSURANCE CLAIM PROCEDURE NOTICE

If you have applied for and received Optional Credit Disability Insurance (Section 19), and become disabled, tell us right away. We will tell you where to get claim forms. Send in the completed form to the Insurance Provider as soon as possible and tell us as soon as you do.

If your disability insurance covers all of your missed payment, WE CANNOT TRY TO COLLECT WHAT YOU OWE OR REPOSSESS THE VEHICLE UNTIL THREE CALENDAR MONTHS AFTER your first missed payment is due or until the insurance company pays or rejects your claim, whichever comes first. We can, however, try to collect, or repossess the vehicle if you have money due and owing us or are otherwise in default when your disability claim is made or if a senior lien holder is foreclosing.

If the insurance company pays the claim within three calendar months, we must accept the money as though you paid on time. If the insurance company rejects the claim within the three calendar months or accepts the claim within the three calendar months as a partial disability and pays less than for a total disability, you will have 35 days from the date that the rejection or the acceptance of the partial disability claim is sent to pay past due payments, or the difference between the past due payments and what the insurance company pays for the partial disability, plus late charges. You can contact us, and we will tell you how much you owe. After that time, we can take action to collect or foreclose or repossess any collateral you may have given.

If the insurance company accepts your claim but requires that you send in additional forms to remain eligible for continued payments, you should send in these additional forms no later than required. If you do not send in these forms on time, the insurance company may stop paying, and we will be able to take action to collect or foreclose or repossess any collateral you may have given.

LEASE SIGNATURES AND NOTICES

By signing below, you acknowledge that: (1) You have read the entire Lease, including all pages; (2) You agree to all of the provisions of this Lease; (3) This is a lease; you have no ownership interest in the Vehicle unless and until you exercise your option to purchase set forth in this Lease.

Notice to the Lessee: (1) Do not sign this Lease before you read it or if it contains any blank spaces to be filled in; (2) You are entitled to a completely filled in copy of this Lease; (3) Warning – Unless a charge is included in this Lease for public liability or property damage insurance, payment for that coverage is not provided by this Lease.

You acknowledge that you have received a completely filled-in copy of this Lease.

Lessee [redacted] L

Name: CITY OF REDLANDS

Co-Lessee N/A L

Name: N/A

Notice Regarding Assignment. As part of a like-kind exchange program, TMCC has engaged TQI Exchange, LLC ("TQI") as a qualified intermediary. Lessor is hereby notified that TMCC has assigned to TQI its rights (but not its obligations) in agreements to acquire the Vehicle.

Acceptance and Assignment: The Lessor hereby accepts this Lease and assigns to the Toyota Lease Trust all rights, title and interest in this Lease and in the Vehicle, and Lessor's rights under any guaranty executed in connection with this Lease, with full powers to Toyota Lease Trust to collect and discharge all obligations related to this Lease, any guaranty, and this assignment.

Lessor [redacted] M

Name: TOYOTA OF REDLANDS

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CERTIFIED RESOLUTION
AND INCUMBENCY CERTIFICATE
TO LEASE OR FINANCE

The undersigned hereby certifies that he/she is City Clerk of City of Redlands, that the following resolution no. 8413 was passed in with the organizational documents and operating procedures of said entity, and that said resolution has not since been revoked or amended:

Resolved that the representative(s) hereinafter authorized (the "Authorized Representative(s)") is/are duly authorized to lease and/or finance from any factory authorized automotive dealership or dealerships ("Dealer"), and Dealer's intended assignee ("Lessor/Creditor"), under one or more leases/installment contracts, vehicles, and/or equipment, and upon such terms and conditions as the Authorized Representative(s), in their discretion, may deem necessary and advisable.

Resolved that the Authorized Representative(s) below is/are a sample of signatures of the authorized representative(s) as witnessed by the duly elected or appointed officials of City of Redlands

SIGNATURE:	AUTHORIZED REPRESENTATIVE:	TITLE
X	Chris Boatman	Assistant City Manager
X		
X		

The Lessor/Creditor is hereby authorized to act upon these resolutions until written notice of their revocation is delivered to the Lessor/Creditor.

I, Jeanne Donaldson, City Clerk of City of Redlands, a Municipal Corporation organized under laws of the state of California do hereby certify that the foregoing is a full, true and correct copy of resolutions of duly authorized officials of City of Redlands

In witness whereof, I have hereunto set my hand this _____ day of _____, 2022.

X

Name: Jeanne Donaldson

Title: City Clerk

DMS 7175 (02/20)

City Council Meeting **J. 1.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Video Series: Working for You (Public Information Officer Baker)

DISCUSSION:

For this evening's City Council meeting, staff will present a new video from the video series “Working for You: Making Redlands a Better Place.” The series highlights one employee each month, from various departments and divisions, specifically describing how that employee’s job fits into the larger mission of the City to improve residents’ lives and make Redlands a better place to live. The videos are available for viewing on the City’s website and social media platforms in addition to being shown in rotation on Redlands TV.

SUBMITTED BY:
Janice McConnell, Assistant City Manager

REVIEWED BY:
Charles M. Duggan, Jr., City Manager
Carl Baker, Public Information Officer

City Council Meeting **K. 1.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Public Hearing to consider and adopt Ordinance No. 2950- An Ordinance of the City of Redlands amending Title 15 (Buildings and Construction), by adopting by reference the 2022 California Building Code, 2022 California Residential Code, 2022 California Plumbing Code, 2022 California Electrical Code, 2022 California Mechanical Code, 2022 California Green Building Standards Code, 2022 California Energy Code, 2022 California Historical Building Code, and the 2022 California Existing Building Code, and making amendments related thereto (Development Services Director Brian Desatnik)

(Mayor to declare meeting open as a public hearing)

1. Public hearing to consider Ordinance No. 2950 amending Chapters 15.04, 15.06, 15.08, 15.10, 15.12, 15.16, 15.18, 15.22 and 15.23 of the Redlands Municipal Code relating to the adoption of the 2022 California Building Code (California Code of Regulations, Title 24, Part 2 including Appendices G,H,I,J), 2022 California Residential Code (California Code of Regulations, Title 24, Part 2.5 including Appendices AH,AJ,AS and AX), 2022 California Plumbing Code (California Code of Regulations, Title 24, Part 5), 2022 California Electrical Code (California Code of Regulations, Title 24, Part 3), 2022 California Mechanical Code (California Code of Regulations Title 24, Part 4), 2022 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), 2022 California Energy Code (California Code of Regulations, Title 24, Part 6), 2022 California Historical Building Code (California Code of Regulations, Title 24, Part 8), and the 2022 California Existing Building Code (California Code of Regulations, Title 24, Part 10), by reference and making amendments thereto and, adding Chapter 15.60 to the Redlands Municipal Code relating to Safety Assessment Placards

PROCEDURE FOR PUBLIC HEARING:

1. Mayor declares the meeting open as a public hearing.
2. Mayor calls upon Department Director for report.
3. Mayor calls for questions/comments from members of the City Council.
4. Mayor calls for comments/questions/testimony from members of the public (3 minutes per speaker).
5. Mayor calls upon City Clerk to note any written comments received.
6. Mayor closes the public hearing.
7. City Council considers the motion and votes.

MOTION(S):

I move to adopt Ordinance No. 2950.

RECOMMENDATION:

Staff recommends the City Council open the public hearing, receive any public comment, close the public hearing and adopt Ordinance No. 2950.

DISCUSSION:

Title 15 of the Redlands Municipal Code (RMC) contains administrative and technical requirements for building construction within the jurisdiction of the City of Redlands. RMC adopts State building standards and additional model codes by reference. The California Code of Regulations, Title 24, also referred to as the California Building Standards Code consists of Parts 1 (Administrative Code), 2 (Building Code), 2.5 (Residential Code), 3 (Electric Code), 4 (Mechanical Code), 5 (Plumbing Code), 6 (Energy Code), 8 (Historical Building Code), 9 (Fire Code), 10 (Existing Building Code), 11 (Green Building Standards Code) and 12 (Referenced Standards Code).

The adoption process takes place every three years and the latest update was published by the State on July 1, 2022. The 2022 California Building Standards Codes will go into effect on January 1, 2023.

The California Building Standards law provides that any city and/or county may establish more restrictive building standards than those contained in the California Building Standards Code that are reasonably necessary because of local climatic, geological, or topographical conditions. Administrative provisions in the code can be amended as needed. With the adoption of this Ordinance, staff is proposing amending the Building Standards Code and adopting applicable localized standards.

The localized amendments that will be addressed under this ordinance will be located in Chapters 15.04, 15.06, 15.08, 15.10, 15.12, 15.16, 15.18, 15.22, and 15.23 of the Redlands Municipal Code. These amendments encompass fencing and walls standards and permitting, construction site safety protocols, hazardous materials safety protocols, permit processing, utility coordination, board of appeals relating to code administration, fire protection related to roof construction in high fire zones, board of appeals relating to code administration, awning installation and permitting, temporary use of streets and alleys, grading protocols, swimming pool safety, sewer and plumbing code administration, plumbing code permit violation standards, electrical code administration and permit violation standards, flush mounted electrical distribution standards, prohibition of electric fencing, prohibition of utilizing used electrical materials, trailer, commercial, and mobile home connections and mechanical code administration with permit violation standards. Many of these standards are carry-overs from the previous code adoption.

ALTERNATIVES:

The City Council may request this item to be continued for additional clarification or information regarding the Ordinance.

SUBMITTED BY:
Brian Desatnik, Development Services Director

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager

PREPARED BY:
John Thompson, Chief Building Official

Fiscal Impact

Appropriation Required Y/N: No

Discussion:

There are no fiscal impacts associated with the proposed ordinance.

Attachments

Ordinance 2950

ORDINANCE NO. 2950

AN ORDINANCE OF THE CITY OF REDLANDS AMMENDING CHAPTERS 15.04, 15.06, 15.08, 15.10, 15.12, 15.16, 15.18, 15.22 and 15.23 OF THE REDLANDS MUNICIPAL CODE RELATING TO THE ADOPTION OF THE 2022 CALIFORNIA BUILDING CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2 INCLUDING APPENDICIES G, H, I, J), 2022 CALIFORNIA RESIDENTIAL CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2.5 INCLUDING APPENDICES AH, AJ, AS, AND AX), 2022 CALIFORNIA ELECTRICAL CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3), 2022 CALIFORNIA MECHANICAL CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4), 2022 CALIFORNIA PLUMBING CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5), 2022 CALIFORNIA ENERGY CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 6), 2022 CALIFORNIA HISTORICAL BUILDING CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 8), 2022 CALIFORNIA EXISTING BUILDING CODE (CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 10), 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 11), BY REFERENCE, AND MAKING AMENDMENTS THERETO.

WHEREAS, California Health and Safety Code Sections 17958.5, 17958.7 and 18941.5 empower the City to adopt by reference various uniform codes, including the California Building Code and California Residential Code, 2022 editions, published by the International Code Council; California Electrical Code, 2022 edition, published by the National Fire Protection Association; California Plumbing Code, 2022 edition and California Mechanical Code, 2022 edition, published by the International Association of Plumbing and Mechanical Officials, and the California Green Building Standards Code, 2022 edition, published by the International Code Council, California Historical Code and the Existing Building Code, 2022 edition, published by the International Code Council along with applicable amendments, as published by the California Building Standards Commission; and

WHEREAS, Health and Safety Code Section 17958.7 authorizes the City to make amendments to said codes on the basis of local climatic, geological, or topographical conditions existing in the City; and

WHEREAS, the City Council of the City of Redlands (the "City Council") is informed and finds that the area in which the City is located receives relatively low amounts of precipitation, very low humidity levels, and extremely high temperatures all of which are conducive to the spread of fire; and

WHEREAS, the City Council is informed and finds that the area in which the City is located is subjected to extremely strong winds, commonly referred to as Santa Ana winds, which reach speeds of 80 miles per hour in the City, result in extensive damage, and are also conducive

to the spread of fire; and

WHEREAS, the City Council is informed and finds that within the City there are four earthquake faults (Redlands Heights, Banning, Crafton, and the Redlands Faults), and three other faults (Loma Linda, San Jacinto, and the San Andreas Faults) are immediately adjacent to the City, creating the potential for catastrophic damage and fire hazards; and

WHEREAS, the City Council has determined that because the City is subject to the above referenced climatic, geological, and topographical conditions that amendments to the California Building Standards Codes are necessary to protect life and property;

THE CITY COUNCIL OF THE CITY OF REDLANDS DOES ORDAIN AS FOLLOW:

Section 1. That existing Chapters 15.04, 15.06, 15.08, 15.10, 15.12, 15.16, 15.18, 15.22, 15.23 of Title 15 of the Redlands Municipal Code are hereby amended to read as described in Exhibit "A" to this ordinance.

Section 2. That the City Council hereby finds and determines that the adoption of this ordinance is exempt from review under the California Environmental Quality Act ("CEQA") pursuant to section 15061(b)(3) of the State Guidelines implementing CEQA.

Section 3. That the City Clerk is hereby directed to publish notice in accordance with Government Code Section 6066 of a public hearing to be held on November 15, 2022 at 6:00pm, or as soon thereafter as the matter may be heard in the Redlands City Council Chambers located at 35 Cajon Street, Redlands, California regarding the City Council's proposed adoption of this ordinance.

Section 4. In the event that any provision of this ordinance, or any part hereof, or any application hereof to any person or circumstances, is for any reason held to be unconstitutional or otherwise invalid or ineffective by a court of competent jurisdiction on its face or as applied, such holding shall not affect the validity of the remaining provisions of this ordinance, or any part hereof, or any application hereof to any person or circumstance or of said provision as applied to any other person or circumstance. It is hereby declared to be the legislative intent of the City that this ordinance would have been adopted had such unconstitutional, invalid, or ineffective provision not been included herein.

Section 5. The Mayor shall sign this ordinance and the City Clerk shall certify to the adoption of this ordinance and shall cause it, or a summary of it, to be published once in the a newspaper of general circulation within the City and thereafter this ordinance shall take effect as provided by law.

_____
Paul T. Barich, Mayor

Attest:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, hereby certify that the foregoing ordinance was duly adopted by the City Council at a regular meeting thereof held on the ___ day of _____, 2022, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Jeanne Donaldson, City Clerk

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Exhibit "A"

CHAPTER 15.04

CALIFORNIA BUILDING CODE (CBC)

SECTIONS:

15.04.010: DOCUMENTS ADOPTED BY REFERENCE; COPIES ON FILE
15.04.020: SCOPE AND ADMINISTRATION
15.04.030: FIRE PROTECTION SYSTEMS
15.04.040: MINIMUM ROOF COVERING CLASSIFICATIONS
15.04.050: AWNINGS
15.04.060: TEMPORARY USE OF STREETS AND ALLEYS
15.04.070: GRADING
15.04.080: VIOLATION; PENALTY

15.04.010: DOCUMENTS ADOPTED BY REFERENCE--COPIES ON FILE:

That certain document on file in the office of the City Clerk of the City marked and designated as the 2022 California Building Code, Volumes 1 and 2, including Chapters 1, as amended, and Appendix G, H, I and J, as amended, is adopted as the building code of the City and all of the regulations, provisions, conditions and terms of such code and amendments are referred to and are adopted and made part of this chapter.

15.04.020 SCOPE AND ADMINISTRATION:

The following sections and subsections of the California Building Code, Chapter 1, Division II, Sections 105 through 113.4 are added and/or amended as follows:

A. CBC Chapter 1, Division II, Section [A]105.2, of the California Building Code entitled "Work exempt from permit" is hereby amended by amending items 2 and 4, and adding a new item 14, to read as follows:

2. Wood, chain-link, plastic, vinyl, metal, or similar fences not over 6 feet in height or masonry, concrete fence not over 3 feet in height measured from the lowest adjacent grade to top of the wall and does not serve as a swimming pool enclosure as required by section 15.06.080 of the Redlands Municipal Code.

4. Retaining walls that are not over 3 feet in height measured from the top of footing unless supporting a surcharge or impounding class I, II or III-A liquids.

14. Flagpole not more than 30 feet in height measured from the lowest adjacent grade the top of the pole on a residential zoned lot.

B. CBC Chapter 1, Division II, Section 105.3.1 entitled “Action on Application”, is hereby amended by the addition of two (2) exceptions to read as follows:

Exception 1: A permit shall not be issued for work on property within an area which may be unsafe or for which no public access for such work is provided, or, because of the hazards, there is no way in which the work can be done so that it will be safe;

Exception 2: A permit shall be withheld or denied if the chief building official finds there are existing violations of the provisions of RMC Title 15 or any other provisions found in the Redlands municipal code, on site.

C. CBC Chapter 1, Division II, Section 105.6, entitled "Suspension or Revocation", is hereby amended by the addition of the following two (2) paragraphs to read as follows:

The chief building official may, in writing, suspend or revoke a permit issued under the provisions of this code if dust is generated in excess of local, state, or federal standards, or conditions of project approvals.

Failure to keep the site clear of debris or properly contain asbestos containing materials may cause the permit to be suspended or revoked and the site to be declared a public nuisance and abated as provided for by law.

D. CBC Chapter 1, Division II, Section 107.6, entitled "Demolition and/or Remodeling Permits", is hereby added to read as follows:

The chief building official may require that a detailed schedule be provided to ensure demolition or remodeling work progresses expeditiously and debris is hauled from the site as generated.

E. CBC Chapter 1, Division II Section [A] 109.4 of the California Building Code is amended by the addition of the following sentence:

Prior to the issuance of a permit for the performed work an investigation permit shall be issued, and an inspection performed.

F. CBC Chapter 1, Division II Section [A] 109.4 of the California Building Code amended by adding the following paragraph to the end of the section.

Investigation fee. An investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The minimum investigation fee shall be equal to the minimum fee as defined in Section 109.2. The payment of such investigation fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

G. CBC Chapter 1, Division II Section [A] 109.6 of the California Building Code is deleted in this entirety and hereby amended by adding the following section:

Fee Refunds. The Chief Building Official may authorize refunding of any fee paid hereunder which was erroneously paid or collected.

The Chief Building Official may authorize refunding of not more than 80 percent of the permit fee paid when no inspections have been performed under a permit issued in accordance with this code.

The Chief Building Official may authorize refunding of not more than 80 percent of the plan review fee when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any plan review is performed.

The Chief Building Official shall not authorize refunding of any fee paid except on written application filed by the original permittee not later than 180 calendar days after the date of fee payment.

H. CBC Chapter 1, Division II Section [A] 109.7 entitled "Re-Inspections" is hereby added to read as follows:

A fee may be assessed in the following scenarios at the fully burdened hourly inspection rate as adopted by fee resolution and shall be paid prior to the re-inspection of the work being scheduled.

1. Re-inspection performed for work that previously received corrections and those corrections were not addressed.
2. Building permit is not posted or otherwise available on the work site
3. City approved plans are not available for scheduled inspection
4. Failure to provide inspector access to the work performed on the date for which the inspection was scheduled.
5. Deviation from the City approved plans

In instances where re-inspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

I. CBC Chapter 1, Division II, Section [A] 111.3 entitled "Temporary Occupancy", is hereby deleted in its entirety and rewritten to read as follows:

If the chief building official finds that no substantial hazard will result from occupancy of any building or portions thereof before the same is completed, the chief building official may issue a Temporary Certificate of Occupancy (TCO) for the use of a portion or portions of a building or structure, provided an administrative fee, as established by resolution of the city council, is paid for that temporary certificate of occupancy. Prior to the expiration of the TCO, an inspection shall be performed, and Permanent Certificate of Occupancy issued or the building vacated until all outstanding conditions of approval are completed.

J. CBC Chapter 1, Division II, Section [A] 111.5, entitled "Certificate of occupancy a requirement for issuing a city business license", is hereby added to read as follows:

No license to conduct a business, occupation or profession in a particular building or structure in the city of Redlands shall be issued by the finance director of said city until the building official has certified an appropriate certificate of occupancy for the business occupancy classification has been issued as required by this code.

K. CBC Chapter 1, Division II Section [A] 113.1, entitled "General", is hereby amended to read as follows:

General. In order to hear and decide appeals of orders, decisions or determination made by the Chief Building Official relative to the application and interpretation of this code, the Planning Commission shall serve as the board of appeals. The Chief Building Official, Director of Development Services and the Fire Marshall of the City shall serve in an advisory capacity when requested to do so. Commission members shall disqualify themselves and shall not participate in any decision in which they have a conflict of interest.

L. CBC Chapter 1, Division II Section [A] 113.4 of Chapter 1, Division II entitled "Procedures", is hereby added to read as follows:

Procedures. An application for an appeal shall be based on a claim that the true intent of this code or other rules legally adopted thereunder have been incorrectly interpreted, the provisions do not fully apply or an equally good or better form of construction is proposed. After notice to such parties as the board may direct, a hearing shall be held and the board may affirm or deny the decision of the chief building official. The board's determination shall be in writing to the chief building

official with a copy to the appellant. If the appellant disagrees with the decision of the board, he may appeal the decision to the city council. Such appeal shall be filed with the city clerk within fifteen (15) days of the decision by the board.

15.04.030 FIRE PROTECTION SYSTEMS:

CBC Chapter 9, Division II, Section 901.2 of the California Building Code is hereby amended by the addition of a sentence to read as follows:

See Redlands Municipal Code, Title 15, and Chapter 15.20: Fire Code, for additions and amendments to this chapter.

15.04.040 MINIMUM ROOF COVERING CLASSIFICATIONS:

CBC Chapter 15, Division II, Table 1505.1 of the California Building Code is hereby amended to read as follows:

Table 1505.1

Minimum Roof Covering Classification for different types of construction for new buildings, re-roofs or additions.

IA	**IB**	**IIA**	**IIB**	**IIIA**	**IIIB**	**IV**	**VA**	**VB**
A	**A**	**A**	**A**	**A**	**A**	**B***	**B***	**B***

*See Section 1505.1.1 for Class A Roof Coverings in Very-High Fire Hazard Severity

15.04.050 AWNINGS:

CBC Chapter 31, division II, sections 3105.4, 3105.4.1, 3105.4.2, 3105.4.3, and 3105.4.4 are hereby added to read as follows:

3105.4 **General**. This section shall apply to awnings projecting over public and/or private property.

3105.4.1 **Definitions**. For the purpose of the section:

Ladder access area is the air space required for a ladder to rest upon the ground, street, or sidewalk and be supported by a building windowsill, permanent appendage, and parapet or roof eave at an angle of 75 degrees from the horizontal.

Collapsible is the property of an awning which will enable it to be readily collapsible, retractable or capable of being folded against the face of the supporting building without the use of a tool, special effort or special knowledge.

3105.4.2 **Construction**. Awnings shall have non-combustible frames but may have fabric coverings that meet fire resistance criteria as outlined in CBC §3105.3. Every awning with non-combustible coverings and every fabric covered awning which projects into the ladder access area, as defined above, shall be collapsible.

Exception: A fixed awning not more than ten (10) feet in length may be erected over a doorway to the building.

3105.4.3 **Projection**. Awnings may extend over public or private property not more than seven (7) feet from the face of the supporting building, but no portion shall extend nearer than two (2) feet to the face of the nearest curb or edge of the traffic way measured horizontally. In no case shall the awning extend over public property greater than two-thirds of the distance from the property line to the nearest curb in front of the building nor shall any portion of the awning be closer to the side or rear property lines than would be permitted by the current edition of the California building code for projections.

3105.4.4 All portions of an awning shall be at least eight (8) feet above any public or private walkway.

Exception: Any valance attached to an awning shall not project above the roof of the awning at the point of attachment and shall not extend more than twelve (12) inches below the roof of the awning at the point of attachment, but in no case shall any portion of a valance be less than seven (7) feet in height above a public or private way.

15.04.060 TEMPORARY USE OF STREETS AND ALLEYS.

CBC Chapter 33, Division II, Section 3308.3 of the California Building Code is hereby added to read as follows:

Public streets and alleys shall not be utilized by persons doing construction or demolition work until proper clearance has been obtained from the City Engineer. Whenever requested, plot plans and construction details shall be submitted to the City Engineer for review. The City Engineer may approve, modify or deny a request to utilize public streets by persons during construction and/or demolition and his decision shall be based on findings relative to hazards to life and limb, traffic safety and/or to excessive traffic or pedestrian congestion. Where damage to public property could result, proper bonds and insurance as specified by the City Engineer may be required. Failure to obtain proper

clearance for use of public property may result in a finding that the materials constitute a public nuisance and a hazard to persons or property and are subject to abatement and/or removal as provided by law.

15.04.070 GRADING.

The following sections and subsections of the California Building Code Appendix J Sections J101 through J114 are hereby added and/or amended to read as follows:

A. CBC Appendix J, Section J101.1 entitled "Scope" is hereby amended to read as follows:

The provisions of this chapter apply to grading, excavation and earthwork construction, including fills and embankments. Where conflicts occur between the technical requirements of this chapter and the geotechnical report, the geotechnical report shall govern. In addition, the designs of the work as described above need to meet the recognized and accepted civil and geotechnical engineering practices and principles.

B. CBC Appendix J, Section J101.3 entitled "Enforcement Authority" is hereby added to read as follows:

The City Engineer shall have the authority for the enforcement of CBC Appendix J and any amendments thereto. The words "Chief Building Official" as hereinafter used shall mean City Engineer.

C. CBC Appendix J, Section J101.4 entitled "Hazardous Conditions" is hereby added as follows:

Whenever the Chief Building Official determines that any existing excavation or embankment or fill on private property has become a hazard to life and limb, or endangers property, or adversely affects the safety, use or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located, or other person or agent in control of said property, upon receipt of notice in writing from the Chief Building Official, shall within the period specified therein repair or eliminate such excavation or embankment to eliminate the hazard and to be in conformance with the requirements of this code.

D. CBC Appendix J, Section J103.2 of the California Building Code is hereby amended to read as follows:

J103.2 Exemptions:

A grading permit shall not be required for the following:

1. Grading in an isolated, self-contained area provided there is no danger to the public and that such grading will not adversely affect adjoining property. A determination of exemption per this section shall be made by the City Engineer.

2. An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation or exempt any excavation having an unsupported height greater than 5 feet (1524mm) after the completion of such structure.

3. Cemetery graves.

4. Refuse disposal sites controlled by other regulations.

5. Excavations for wells or trenches for utilities.

6. Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.

7. Exploratory excavations performed under the direction of soil engineers or engineering geologists.

8. A fill less than 1 foot (305mm) in depth and placed on natural terrain with a slope flatter than 1 unit vertical in 5 units horizontal (20% slope), or a cut less than 3 feet (914mm) in depth, not intended to support structures, or does not exceed 50 cubic yards (38.3m) on any one lot and does not obstruct a drainage course.

9. Grading by public agencies or their agents, in connection with construction or maintenance of roads or facilities for the generation, storage, or transmission of water including flood waters or water for the purpose of producing electrical energy.

10. Grading performed by disking or plowing for agricultural purposes in connection with the preparation of soil for crop or animal use.

Exemption from the permit requirements of this Appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of the City.

E. CBC Appendix J, Section J104.5 entitled "As Built Plans" is hereby added to read as follows:

The permittee shall provide a copy of as-built plans to the City for a permanent record at the end of the approved grading work.

F. CBC Appendix J, Section J105.1 of the California Building Code is hereby amended to read as follows:

Inspections shall be governed by Section 110, Chapter 1, Division II of this code and requirements established, by approved policies and procedures of the Engineering Division. An engineer shall provide grading inspections and certifications for the work.

G. CBC Appendix J, Section J109.4 of the California Building Code is hereby amended to have the following sentences added at the end of the section:

For Single Family Lot Drainage

1. Whenever possible, drainage from single family lots shall flow directly to a street.

2. If it should be determined necessary to allow offside drainage to flow through a single-family lot (to preserve down lot views, aesthetics, accept flow from offsite property, etc.), the following shall apply:

    a. Drainage from only one lot shall flow through only one other lot.

    b. A drainage easement shall be provided/obtained over the lot accepting the drainage.

    c. The drainage shall be contained within either a concrete/rock lined swale or a reinforced concrete pipe.

    d. The drainage facility shall be designed with excess capacity to account for the probable lack of necessary maintenance. Therefore, it shall be designed to convey two times the runoff from a 100-year storm with the minimum diameter for a pipe being 12 inches.

H. CBC Appendix J Section J110.3 entitled "Temporary erosion control during construction", is hereby added to read as follows:

The permittee shall put into effect and maintain all precautionary measures necessary to protect adjacent watercourses and public or private property from damage by erosion, flooding, and deposition of mud or debris origination from the site during the grading operation regardless of lot size.

I. CBC Appendix J Section J112 entitled "Protection of adjacent property" is hereby added to read as follows:

During grading operations, the permittee shall be responsible for the prevention of damage to adjacent property and no person shall excavate on land sufficiently close to the property line to endanger any adjoining public street, sidewalk, alley, or other public or private property without supporting and protecting such property from settling, cracking, or other damage which might result.

J. CBC Appendix J Section J113 entitled "Dust control" is hereby added to read as follows:

The owner of the site or the project contractor shall put into effect and maintain all precautionary measures necessary to prevent dust blowing from the site to adjacent properties. Prior to the permit issuance, dust control sign and required contact information as required by the department's policy shall be installed at the site.

15.04.070: VIOLATION; PENALTY:

It is unlawful for any person, firm, corporation, partnership, or entity to do or permit the following: erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any residential building in violation of this chapter. Such person who violates any of the provisions of this chapter is guilty of a misdemeanor. Such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed, continued or permitted. Upon conviction, such person may be punishable by a fine not exceeding one thousand dollars ($1,000.00), or by imprisonment in the county jail for a period not exceeding six (6) months, or by both such fine and imprisonment.

CHAPTER 15.06

RESIDENTIAL BUILDING CODE

SECTIONS:

15.06.010: DOCUMENT ADOPTED BY REFERENCE; COPIES ON FILE
15.06.020: Work exempt from permit
15.06.030: Temporary Occupancy

15.06.040: Board of Appeals
15.06.050: Geotechnical Evaluation
15.06.060: Minimum Roof Classification
15.06.070: Swimming Pool Safety
15.06.080: Violation; Penalty

15.06.010: DOCUMENTS ADOPTED BY REFERENCE; COPIES ON FILE.

That certain document on file in the office of the City Clerk of the City marked and designated as the 2022 California Residential Code including Chapters 1, 4, and 9 (as amended), and Appendices AH, AJ, AS, and AX (as amended) are adopted as the residential code of the City and all of the regulations, provisions, conditions and terms of such code and amendments are referred to and are adopted and made part of this chapter.

15.06.020: WORK EXEMPT FROM PERMIT:

CRC chapter 1, division II, section R105.2 (2) and (3) is hereby deleted and rewritten to read as follows:

See Redlands Municipal Code, Title 15, Chapter 15.06.20(A)

15.06.030: TEMPORARY OCCUPANCY:

CRC chapter 1, division II, section R110.4 is hereby deleted in its entirety and rewritten to read as follows:

See Redlands Municipal Code, Title 15, Chapter 15.04.020(H) for additions and amendments to this section.

15.06.040: BOARD OF APPEALS:

CRC chapter 1, division II, section R112 is hereby deleted in its entirety and rewritten to read as follows:
See Redlands Municipal Code, Title 15, Chapter 15.04.020(L)(M) for additions and amendments to this section

15.06.050 GEOTECHNICAL EVALUATION

CRC Chapter 4 Division II Section R401.4.1 of the California Residential Code is hereby amended by adding a sentence at the end of the section to read as follows:

A geotechnical or soil report is required for the new construction or when the aggregate size of additions to the original structure exceed 50%.

15.06.060 MINIMUM ROOF COVERING CLASSIFICATION

A. CRC chapter 9, subsection 902.1.1 shall be amended in part in terms of being retitled as follows:

Roof Coverings within the fire hazard areas as designated by the City of Redlands Fire Chief on the Fire Hazard Map.

B. CRC chapter 9, division II, section R902.1.3 of the California residential code is hereby amended to read as follows:

The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be fire-retardant roof covering that is at least Class B.

C. The remainder of the subsection shall remain unchanged.

15.06.070 SWIMMING POOL SAFETY

A. CRC appendix AX, section 115922 is hereby amended to read as follows:

Except as provided in Section 115925, when a building permit is issued for the construction of a new pool and/or spa or the remodeling of an existing pool and/or spa at a private single-family home, the respective swimming pool and/or spa shall be equipped with item #1 and at least one addition of the following seven drowning prevention features:

B. CRC appendix AX, section 115923 is hereby amended to read as follows:

An enclosure that meets the requirements of Section 115923 and isolates the swimming pool or spa from the private single-family home. Any walls of the residential structure or accessory structures used to complete the isolation enclosure must have its door openings equipped with protection as required in 115922 (a) #4 or #5. Any such door protection device provided for this purpose may not be used to comply with the second drowning prevention feature requirement.

15.06.080 VIOLATION; PENALTY

It is unlawful for any person, firm, corporation, partnership, or entity to do or permit the following: erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any plumbing in violation of this chapter. Every person who violates any of the provisions of this chapter is guilty of a misdemeanor. Such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed, continued or permitted. Upon conviction such person may be punishable by a fine not exceeding one thousand dollars ($1,000.00), or by imprisonment in the county jail for a period not exceeding six (6) months, or by both such fine and imprisonment.

CHAPTER 15.08

CALIFORNIA PLUMBING CODE

SECTIONS:

15.08.010: DOCUMENT ADOPTED BY REFERENCE; COPIES ON FILE
15.08.020: BOARD OF APPEALS
15.08.030 BUILDING SEWERS
15.08.040 PRIVATE SEWAGE DISPOSAL SYSTEMS
15.08.050: VIOLATION; PEANALTY

15.08.010 DOCUMENT ADOPTED BY REFERENCE; COPIES ON FILE.

That certain document on file in the office of the City Clerk of the City marked and designated as the California Plumbing Code, 2022 Edition, including Chapter 1, Division II (as amended) with Appendices, is adopted as the Plumbing Code of the City and all of the regulations, provisions, conditions and terms of the California Plumbing Code are referred to and are adopted and made part of this chapter.

15.08.020 BOARD OF APPEALS.

CPC Chapter 1, Division II, Section 107, is hereby deleted in its entirety and rewritten to read as follows:

> The Board of Appeals and the procedures concerning its operation as described in Title 15, Chapter 15.04 of the Redlands Municipal Code, shall also apply to all appeals resulting from the administration of the California Plumbing Code.

15.08.030 BUILDING SEWERS

CPC Chapter 7, Division II, Section 713.4 is deleted in its entirety and rewritten as follows:

713.4 Public Sewer Availability.

The public sewer shall be considered as not being available where such public sewer is more than two hundred (200) feet for the first dwelling unit and an additional one hundred (100) feet for each subsequent dwelling unit from the nearest point of the property that is served by such public sewer. A property owner, or his authorized representative, may request in writing a waiver based upon technical infeasibility due to site constraints. This request shall be reviewed by the Chief Building Official and a determination given in writing.

15.08.040: PRIVATE SEWAGE DISPOSAL SYSTEMS:

CPC chapter 1, division II, chapter 7 section 721.2.1 are hereby added to read as follows:

721.2.1 Location of private sewage disposal systems.

All components of an onsite wastewater treatment system shall be located in the front yard area as defined in Redlands Municipal Code.

Exception: If site constraints exist that prevent the placement of the onsite wastewater treatment system in the front yard an alternate location providing vehicle access for the future replacement and servicing shall be provided. If vehicle access is not provided as a result of structures or topography, then both the primary and 100% expansion effluent dispersal fields shall be installed.

15.08.040 VIOLATION; PENALTY.

It is unlawful for any person, firm, corporation, partnership, or entity to do or permit the following: erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any plumbing in violation of this chapter. Every person who violates any of the provisions of this chapter is guilty of a misdemeanor. Such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed, continued or permitted. Upon conviction such person may be punishable by a fine not exceeding one thousand dollars, or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment.

CHAPTER 15.10

CALIFORNIA ELECTRICAL CODE

SECTIONS:

15.10.010: DOCUMENT ADOPTED BY REFERENCE; COPIES ON FILE
15.10.020: APPEALS BOARD
15.10.040: ELECTRIC FENCES
15.10.040: USED MATERIAL
15.10.050: TRAILERS, MOBILHOMES, COMMERCIAL COACHES AND HOUSE CARS:
15.10.060: VIOLATION–PENALTY

15.10.010 DOCUMENT ADOPTED BY REFERENCE; COPIES ON FILE.

That certain document on file in the office of the City Clerk of the City marked and designated as the California Electrical Code, 2022 Edition and Annexes thereto, is adopted as the Electrical Code of the City and all regulations, provisions, conditions, and terms of such electrical code and amendments are referred to and adopted and made a part of this chapter.

15.10.020 BOARD OF APPEALS.

CEC Article 89, Section 89.108.8 shall be deleted in its entirety and shall be rewritten to read as follows:

> Appeals and the procedures concerning its operation as described in Title 15, Chapter 15.04 of the Redlands Municipal Code, shall also apply to all appeals resulting from the administration of the California Electric Code.

15.10.030 ELECTRIC FENCES:

CEC article 90, section 90.10 is hereby added to read as follows:

> It is unlawful to install any type of electric fence within the city of Redlands. Prohibited electric fences include, but are not limited to, those energized by battery, generator or electrical utility.

15.10.040 USED MATERIAL:

CEC Article 90, Section 90.11 is hereby added to read as follows:

Previously used electrical material shall not be reused without prior written approval of the Chief Building Official.

15.10.050 TRAILERS, MOBILEHOMES, COMMERCIAL COACHES AND HOUSECARS:

CEC Article 90, Section 90.12 is hereby added to read as follows:

Trailers, mobile homes, and commercial coaches being utilized for construction projects as defined in title 8, chapter 8.20 of the Redlands Municipal Code which connect to temporary power shall comply with the city's adopted electrical code. Trailers, mobile homes, commercial coaches, and house cars connected to an electrical source shall obtain an electrical permit prior to the placement and inspections.

15.10.060 VIOLATION; PENALTY

It is unlawful for any person, firm, corporation, partnership, or entity to do or permit the following: erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any electrical system in violation of this chapter. Every person who violates any of the provisions of this chapter is guilty of a misdemeanor. Such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed, continued or permitted. Upon conviction such person may be punishable by a fine not exceeding one thousand dollars, or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment.

CHAPTER 15.12

CALIFORNIA MECHANICAL CODE

SECTIONS:

15.12.010: DOCUMENT ADOPTED BY REFERENCE; COPIES ON FILE
15.12.020: BOARD OF APPEALS
15.12.030 VIOLATION; PENALTY

15.12.010 DOCUMENT ADOPTED BY REFERENCE; COPIES ON FILE.

That certain document on file in the office of the City Clerk of the City marked and designated as the California Mechanical Code, 2022 Edition, including Chapter 1, Division II (as amended) with Appendices, is adopted as the mechanical code of the City and all of the regulations, provisions, conditions and terms of the California Mechanical Code are referred to and are adopted and made

part of this chapter.

15.12.020 BOARD OF APPEALS.

CMC Chapter 1, Division II, Section 107.1 of the California Mechanical Code is hereby deleted in its entirety and rewritten to read as follows:

> The Board of Appeals and the procedures concerning its operation as described in Title 15, Chapter 15.04 of the Redlands Municipal Code, shall also apply to all appeals resulting from the administration of the California Mechanical Code.

15.12.030 VIOLATION; PENALTY.

It is unlawful for any person, firm, corporation, partnership, or entity to do or permit the following: erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any plumbing in violation of this chapter. Every person who violates any of the provisions of this chapter is guilty of a misdemeanor. Such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed, continued or permitted. Upon conviction such person may be punishable by a fine not exceeding one thousand dollars, or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment.

Chapter 15.16

CALIFORNIA GREEN BUILDING STANDARDS CODE

SECTIONS:

15.16.010: DOCUMENT ADOPTED BY REFERENCE - COPIES ON FILE
15.16.020: VIOLATION; PENALTY

15.16.010 DOCUMENT ADOPTED BY REFERENCE - COPIES ON FILE.

That certain document on file in the office of the City Clerk of the City marked and designated as the California Green Building Standards, 2022 Edition, is adopted as the Green Building Code of the City and all of the mandatory regulations, provisions, conditions and terms of such code and amendments are referred to and are adopted and made part of this Chapter.

15.16.020 VIOLATION; PENALTY.

It is unlawful for any person, firm or corporation to violate or allow violations of any mandatory requirement of this chapter. Every person who violates any of the provisions of this chapter is

guilty of a misdemeanor. Such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed, continued or permitted. Upon conviction, such person may be punished by a fine not exceeding one thousand dollars, or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment.

Chapter 15.18

CALIFORNIA ENERGY CODE

SECTIONS:

15.18.010: DOCUMENT ADOPTED BY REFERENCE; COPIES ON FILE
15.18.020: VIOLATION AND PENALTY

15.18.010 DOCUMENT ADOPTED BY REFERENCE - COPIES ON FILE.

That certain document on file in the office of the city clerk of the city marked and designated as the California Energy Code, 2022 edition, is adopted as the Energy Code of the City and all of the mandatory regulations, provisions, conditions and terms of such code and amendments are referred to and are adopted and made part of this chapter.

15.18.020 VIOLATION; PENALTY.

It is unlawful for any person, firm or corporation to violate or allow violations of any mandatory requirement of this chapter. Every person who violates any of the provisions of this chapter is guilty of a misdemeanor. Such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed, continued or permitted. Upon conviction, such person may be punished by a fine not exceeding one thousand dollars, or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment.

Chapter 15.22

CALIFORNIA HISTORICAL BUILDING CODE

SECTIONS:

15.22.010: DOCUMENT ADOPTED BY REFERENCE - COPIES ON FILE
15.22.020: VIOLATION; PENALTY

15.22.010 DOCUMENT ADOPTED BY REFERENCE - COPIES ON FILE.

That certain document on file in the office of the City Clerk of the City marked and designated as the California Historical Building Code, 2022 Edition, is adopted as the Historical Building Code of the City and all of the mandatory regulations, provisions, conditions and terms of such code and amendments are referred to and are adopted and made part of this Chapter.

15.22.020 VIOLATION; PENALTY.

It is unlawful for any person, firm or corporation to violate or allow violations of any mandatory requirement of this chapter. Every person who violates any of the provisions of this chapter is guilty of a misdemeanor. Such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed, continued or permitted. Upon conviction, such person may be punished by a fine not exceeding one thousand dollars, or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment.

Chapter 15.23

CALIFORNIA EXISTING BUILDING CODE

SECTIONS:

15.23.010: DOCUMENT ADOPTED BY REFERENCE - COPIES ON FILE
15.23.020: VIOLATION; PENALTY

15.23.010 DOCUMENT ADOPTED BY REFERENCE - COPIES ON FILE.

That certain document on file in the office of the City Clerk of the City marked and designated as the California Existing Building Code, 2022 Edition, is adopted as the Existing Building Code of the City and all of the mandatory regulations, provisions, conditions and terms of such code and amendments are referred to and are adopted and made part of this Chapter.

15.23.020 VIOLATION; PENALTY.

It is unlawful for any person, firm or corporation to violate or allow violations of any mandatory requirement of this chapter. Every person who violates any of the provisions of this chapter is guilty of a misdemeanor. Such person shall be deemed guilty of a separate offense for each and every day or portion thereof during which any violation of any of the provisions of this chapter is committed, continued or permitted. Upon conviction, such person may be punished by a fine not exceeding one thousand dollars, or by imprisonment in the county jail for a period not exceeding six months, or by both such fine and imprisonment.

City Council Meeting **K. 2.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: **APPLICANT: MADISON CAPITAL GROUP**
(PROJECT PLANNER: TAMARA HARRISON, CONTRACT PLANNER)

Public Hearing to consider the development of a proposed self-storage facility on a 6.34-acre property located on the south side of Naples Avenue between Wabash Avenue and Jasper Avenue that includes the following permits and approvals (Development Services Director Brian Desatnik)

(Mayor to declare meeting open as a public hearing)

a. **Resolution No. 8402 (Mitigated Negative Declaration)** - Consideration of a Mitigated Negative Declaration prepared for the proposed project in accordance with Section 15074 of the California Environmental Quality Act.

b. **Resolution No. 8403 (Intention to Vacate - Street Vacation No. 186)** - A request to consider a resolution declaring the City Council's intention to vacate a portion of excess public right-of-way, three feet (3'0") wide and approximately 404 feet in length, for Street Vacation No. 186 located on the westerly side of Jasper Avenue and along the project site's frontage on Jasper Avenue.

c. **PUBLIC HEARING** to consider **Ordinance No. 2951 (Ordinance Text Amendment No. 363)** – A request to amend RMC Section 18.96.070 for the Highway Commercial (C-4) zone to permit self-storage facilities as a conditional use subject to a Conditional Use Permit on properties in the C-4 zone that are a minimum of five acres in size.

d. **PUBLIC HEARING** to consider **Resolution No. 8404 (Conditional Use Permit No. 1168)** - A request to construct a self-storage facility consisting of eleven buildings and totaling

123,456 square-feet with 835 storage units, a 700 square-foot leasing office, and related site improvements to include driveways, sidewalks, perimeter improvements, landscape, lighting, and utility connections on a 6.34-acre project site, and approve the related Socio-Economic Cost/Benefit Study prepared for the project.

PROCEDURE FOR PUBLIC HEARING:

1. Mayor declares the meeting open as a public hearing.
2. Mayor calls upon Department Director for report.
3. Mayor calls for questions/comments from members of the City Council.
4. Mayor calls upon applicant, or his/her representative, for comments and testimony.
5. Mayor calls for comments/questions/testimony from members of the public
   (3 minutes per speaker).
6. Mayor calls upon City Clerk to note any written comments received.
7. Mayor calls upon the applicant, or representative, for rebuttal comments (5 minutes).
8. Mayor closes the public hearing.
9. City Council considers the motion and votes.

MOTION(S):

If the City Council determines that the Planning Commission's recommendation is appropriate, the following motions are provided:

Environmental Determination:

"I move that the City Council adopt Resolution No. 8402 and determine that the information contained in the administrative record justifies the adoption of a Mitigated Negative Declaration for the proposed project; and I further move approval and adoption of the related Mitigation Monitoring and Reporting Program, and direct staff to file and post a Notice of Determination in accordance with the State CEQA Guidelines."

Street Vacation:

"I move that the City Council adopt Resolution No. 8403 declaring the intention to vacate a portion of Jasper Avenue for Street Vacation No. 186."

Ordinance Text Amendment:
Mayor requests the City Clerk to read the title of Ordinance No. 2951;

"I move to waive further reading of Ordinance No. 2951, and to introduce Ordinance No. 2951 for the approval of Ordinance Text Amendment No. 363."

Conditional Use Permit:

I move that the City Council adopt Resolution No. 8404 and approve Conditional Use Permit No. 1168 for a self-storage development project, subject to the attached conditions of approval."

COMMISSION RECOMMENDATION:

On October 5, 2022, the Planning Commission held a public hearing and reviewed the proposal. The Planning Commission voted 6 to 0 to recommend that the City Council adopt the Mitigated Negative Declaration for the project, adopt the Socio-Economic Cost/Benefit Study prepared for the project, approve Ordinance Text Amendment No. 363, begin proceedings to approve Street Vacation No. 186, and approve Conditional Use Permit No. 1168 subject to the conditions of approval attached to the resolution. The Planning Commission staff report of October 5, 2022 (see Attachment A) contains additional analysis and discussion of the project.

BACKGROUND:

The project site located at the southeast corner of Wabash Avenue and Naples Avenue (see Attachment B) is currently vacant and undeveloped. Historic Aerials show that the subject site was previously used for agricultural purposes from the late 1930s until at least 1968. Historic aerials also show that the previous agricultural use ceased on or before 1980 although clearing and disking activities have taken place at the project site since that time.

There have been no recent changes to the site's General Plan designation in recent history and no General Plan Amendment is proposed by the project. Similarly, the project proposes no changes to the current zoning, and the property's existing zoning designation is C-4, Highway Commercial. The General Plan land use map (Attachment C) and the city's Zoning Map (Attachment D) are attached for reference.

DISCUSSION:

A) Project Description

The proposal is to construct a 123,456 square-foot self-storage facility consisting of eleven (11) detached buildings that will contain a total of 835 storage units, a

700 square-foot leasing office, and related site improvements including parking lot, walls and fences, landscape, lighting, and utility connections on a 6.34-acre parcel. In order to implement the proposed project, several actions are required:

- Ordinance Text Amendment No. 363 to add “Self-Storage or mini-storage facilities on a project site a minimum size of five (5) acres” as a use that requires a Conditional Use Permit in the C-4 district;
- Street Vacation No. 186 proposing to vacate three (3) feet of roadway on Jasper Avenue along the project site's frontage (for a total length of approximately 404 feet);
- Conditional Use Permit No. 1168 to permit the construction and operation of the self-storage facility.

B) General Plan Consistency

The General Plan land use designation for the project site is Commercial. The 2035 General Plan describes the Commercial land use category as an area that “provides land for retail stores, hotels, motels, automobile sales and services, offices, and entertainment facilities. It also permits residential, mixed-use development.” The proposed self-storage facility could be considered a retail service type of use (intended to serve individual customers and local residents), and therefore, would be consistent with the General Plan land use designation.

The proposed self-storage use is consistent with several General Plan policies. See Attachment F for a detailed list and analysis of the project’s consistency with the General Plan.

C) Zoning and Ordinance Text Amendment

The project site currently has a zoning designation as Highway Commercial (C-4). The C-4 district is intended to “provide for the development of commercial enterprises adjacent to the major thoroughfares of the community.” The Highway Commercial zone allows the uses permitted within the General Commercial District which include offices. At present, the C-4 district does not permit self-storage or mini-storage facilities, therefore the applicant proposes an amendment to RMC Section 18.96.070 (Conditional Uses, Highway Commercial district) that would allow self-storage or mini-storage facilities in the C-4 district on sites of at least five (5) acres, and with approval of a Conditional Use Permit. This ordinance amendment is necessary to allow the proposed project. The specific language in the list of conditional uses for the C-4 district would read: “Self-storage or mini-storage facilities on a project site with a minimum size of five acres”.

The project has been reviewed for compliance with the required development standards for the C-4 zone, and the project will meet all applicable development standards (see Attachment G for a detailed list of C-4 development standards and the project's compliance).

D) Conditional Use Permit

As referenced in the analysis above, with approval of Ordinance Text Amendment No. 363, a Conditional Use Permit would be required to establish a self-storage facility in the C-4 zone on project sites that are a minimum of five acres. The applicant believes a self-storage facility would be the highest and best use for the property, given its long vacancy (over 40 years) and lack of interest from other developers in recent years. The applicant's market analysis has indicated there is a deficiency of self-storage space for the local community (including businesses as well as residents), and the applicant is particularly interested in future market expansion as evidenced by several new housing developments occurring on the north side of Redlands.

The subject site is surrounded by developed properties in all directions including commercial and residential uses to the north and west of the site while properties adjacent to the east and south of the project site contain existing RV and Boat storage uses. Additional storage uses can be found further to the south of the project site as well beyond Nice Avenue. The proposed land use is compatible with existing uses in the surrounding area and would not cause a disruption to those existing operations. Rather, the proposed use would provide a needed service to residents and business owners in the area as it is conveniently located in an easily accessible location that contains a heavy concentration of homes just across Wabash Avenue to the west, beyond Colton Avenue to the south and across Mentone Boulevard to the north as well as businesses in all directions. Detailed features of the project include the following:

Parking and Circulation: The project provides the amount of parking required by the code (see Attachment A for more detailed discussion). The parking area is located just east of Wabash Avenue and the proposed leasing office. No parking is required for the storage units, and the drive aisles provide the necessary loading and unloading space for the units. Ingress and egress is provided from via two driveways, one located on Wabash Avenue (west side of project site) and one located on Jasper Avenue (east side of project site). Additionally, all driveway entrances throughout the project site meet the minimum 26-foot width for driveways with two-way traffic.

Landscaping: Detention basins are proposed along the front of the property along the Wabash Avenue frontage, and will have appropriate landscaping. Perimeter landscaping is being proposed throughout the project site (see Attachment H). The proposed landscaping will consist of a combination of trees, shrubs, and groundcover arranged around the perimeter of the project site, and will comply with code requirements for a minimum of 20% of the site to be landscaped. The proposed landscaping will be drought tolerant and will be required to comply with the City’s Water Efficient Landscaping Ordinance and the Redlands Municipal Code landscaping requirements.

Elevations and Design: The proposed 700 square foot leasing office building that is located just east of Wabash Avenue has a contemporary design that consists of a white stucco wall finish, an aluminum storefront with clear glass and a charcoal gray metal canopy with a standing seam metal roof. The leasing office will also include a red stucco trim. The architectural treatment is visible along the north, east and west elevations which are the sides that are primarily visible from the public right-of-way. Overall, the office building provides articulation, architectural elements, and texture.

The building material for the storage buildings and units will consist of stucco walls in various tones of gray. The north, south (corner), and east (corner) elevations also feature stone veneer columns and bases in gray color tones. The storage units will also include red roll-up metal doors. The proposed color palette for the rolling doors and the trim detail at the office along with the stone veneer columns and bases at the leasing office building entrance will serve as architectural accent materials and colors.

E) Street Vacation

The applicant has filed an application to vacate a portion of public right-of-way approximately 404 feet in length and 3’0” in width for the entire frontage of the project site along Jasper Avenue (east side or rear) adjacent to the project site. The existing street is 66 feet wide (i.e., half-width of 33 feet from street centerline to the property line of the subject property). The proposal would reduce the half-width to 30 feet along the project site’s frontage on Jasper Avenue, with a total right-of-way of 60 feet for Jasper Avenue, which complies with the General Plan Chapter 5, "Connected City," for a Local Road.

A resolution for a Notice of Intent to Vacate is before the City Council as required by Section 8320 of the Streets and Highways Code for the proposed street vacation (Attachment L). The Street Vacation will return to the City Council at a later date for a decision, and as such, a condition of approval is included for the project requiring that the applicant receive approval of the Street Vacation prior to issuance of any building or engineering permits.

F) Socio-Economic Cost/Benefit Study

The General Plan, in accordance with Measure “U”, requires that a Socio-Economic Cost/Benefit Study be completed for projects involving structures larger than 5,000 square feet. According to the Cost/Benefit Model used by the City, this project is estimated to annually provide approximately $30,965 in non-residential revenue and approximately $5,289 in costs to provide City services, and therefore results in a positive balance of $25,675 (or a Cost/Benefit Ratio of +5.85). For every dollar the City spends in providing City services, it can be anticipated to receive $5.85 dollars in revenue. The proposed project will not create a physical blight or overburden public services in the community, and no additional information or evaluation is needed, as explained

in the Socio-Economic Cost/Benefit Study (Attachment I).

ENVIRONMENTAL REVIEW:

The proposed project is subject to the California Environmental Quality Act (CEQA), and the City prepared an Initial Study to evaluate the required environmental topics. The Initial Study (Attachment J-1) was posted on the State Clearinghouse website, the City's website (https://www.cityofredlands.org/post/environmental-documents), and Planning Division office. The 30-day public review and comment period began on August 18, 2022, and ended on September 19, 2022. One comment letter was received from the County Department of Public Works (Attachment J-2) regarding the need for a County encroachment permit for construction activities. No other public comments have been received.

There is no substantial evidence that the proposed project may have a significant effect on the environment, and a Mitigated Negative Declaration in the appropriate determination in accordance with the State CEQA Guidelines. The Planning Commission recommended that the City Council adopt and certify the Initial Study/Mitigated Negative Declaration (Attachment J-1) and Mitigation Monitoring & Reporting Program (Attachment J-3) prepared for the proposed project.

ALTERNATIVES:

1. The City Council can continue the public hearing and direct staff to address any issues or bring back additional information; or
2. The City Council can continue the public hearing and direct staff to prepare findings supporting denial of the request.

SUBMITTED BY:
Brian Desatnik, Development Services Director

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager

PREPARED BY:
Emily Elliott, Contract Planner

Attachments

Attachment A: Planning Commission Staff Report
Attachment B: Location Map & Aerial Photo
Attachment C: Site Plan
Attachment D: General Plan Land Use Map
Attachment E: Zone Map
Attachment F: General Plan Consistency
Attachment G: Table of C-4 Development Standards
Attachment H: Landscape Plan
Attachment I: Socio-Economic Cost/Benefit Study
Attachment J-1: Initial Study/Mitigated Negative Declaration
Attachment J-2: Public Comments on IS/MND
Attachment J-3: Mitigation Monitoring & Reporting Program
Attachment K: Resolution 8402 (CEQA determination)
Attachment L: Resolution No. 8403 (Notice of Intent to Vacate)
Attachment M: Ordinance No. 2951 (Ordinance Text Amendment)
Attachment N-1: Resolution No. 8404 (Conditional Use Permit)
Attachment N-2: Exhibit B (Engineering Conditions of Approval)

City of Redlands
REQUEST FOR PLANNING COMMISSION ACTION

Special Planning Commission **Agenda Item NO. 5. B.**

Meeting Date: 10/05/2022

APPLICANT:

MADISON CAPITAL GROUP
(PROJECT PLANNER: TAMARA HARRISON, CONTRACT PLANNER)

PUBLIC HEARING to consider the following applications for a 6.34-acre property located on the south side of Naples Avenue between Wabash Avenue and Jasper Avenue in the C-4, Highway Commercial District (APN: 0298-051-07-0000):

1. **Ordinance Text Amendment No. 363** – A request to amend RMC Section 18.96.070 to permit self-storage facilities on properties a minimum of five acres in size as a conditional use subject to a Conditional Use Permit.

2. **Conditional Use Permit No. 1168** – A request to construct a self-storage facility consisting of eleven buildings totaling 123,456 square feet with 835 storage units, a 700 square foot leasing office, and related site improvements to include driveways, sidewalks, perimeter improvements, landscape, lighting, and utility connections.

3. **Street Vacation No. 186** – A request to vacate three (3’0”) feet of public right-of-way along the Jasper Avenue frontage.

SYNOPSIS

1. General Plan Designation:	Commercial
2. Existing Zoning:	Highway Commercial (C-4) District
3. Surrounding Zoning:	North: Highway Commercial (C-4); and General Commercial (in the County) East: Light Industrial (M-1); and Community Industrial (in the County) South: Light Industrial (M-1) West: Highway Commercial (C-4) and Single-Family Residential (R-1)
4. Existing Land Use:	The property is presently vacant with a flat terrain.
5. Surrounding Land Use:	North: Jack-In-The-Box restaurant; single-family residences in the unincorporated community of Mentone, and businesses along Mentone Blvd. South: RV Storage business; light industrial businesses East: RV and Boat Storage business; light industrial businesses West: Retail shopping center; single-family residential neighborhoods
6. Area/Topography:	The site is surrounded by development, with generally flat topography.
7. Environmental Determination:	The project is subject to environmental review, and a Mitigated Negative Declaration is proposed.

8. Socio-Economic Cost / Benefit Study:	A Socio-Economic Cost/Benefit Study was prepared per the requirements of Measure 'U,' and the project has a positive Cost/Benefit ratio of 5.85.	
9. Planning Commission Submittal Dates:	(A) Date Submitted: (B) Date Accepted As Complete: (C) Planning Commission Meeting:	February 7, 2022 July 1, 2022 September 27, 2022

PROPOSAL

The proposal is to construct a 123,456 square-foot self-storage facility consisting of 11 detached buildings that will contain 835 storage units, a 700 square foot leasing office, and related site improvements including parking lot, walls and fences, landscape, detention basins, and lighting on a 6.34-acre parcel. The project site is located on the south side of Naples Avenue between Wabash Avenue and Jasper Avenue (see Attachment A – Location Map & Aerial Photo) in the C-4, Highway Commercial zone. The following approvals are requested (see Attachment B – Site Plan):

- Ordinance Text Amendment No. 363 to add "Self-Storage or mini-storage facilities on a project site a minimum size of five (5) acres" as a use that requires a Conditional Use Permit in the C-4 district;
- Street Vacation No. 186 proposing to vacate three (3) feet of roadway on Jasper Avenue;
- Conditional Use Permit No. 1168 to permit the construction and operation of the facility.

BACKGROUND

The project site is currently vacant and undeveloped. Historic aerials show that the subject site was previously used for agricultural purposes from the late 1930s until at least 1968. Historic aerials also show that the previous agricultural use ceased on or before 1980, although clearing and discing activities have taken place at the project site since that time.

ANALYSIS

A) General Plan Policies

The project site's current General Plan designation is Commercial (see Attachment C). The 2035 General Plan describes the Commercial land use category as an area that "provides land for retail stores, hotels, motels, automobile sales and services, offices, and entertainment facilities. It also permits residential, mixed-use development." The proposed self-storage facility could be considered a retail service type of use (intended to serve individual customers and local residents), and therefore, would be consistent with the General Plan land use designation. The project is consistent with General Plan policies from Chapter 4, Livable Community, such as the following policies.

> *4-P.7:* Promote a diversity of compatible land uses throughout the city, providing opportunities for the development of a range of businesses, services, residential types, and public facilities to meet the needs of the community.

The proposed 123,456 square foot storage facility will be compromised of 11 detached buildings with 835 storage units and a separate 700 square foot leasing office. The project will serve as an added amenity to the community and to the adjacent cities by providing a service where individuals or business owners are able to store their goods either short-term or long-term. The proposed use is surrounded by a range of uses which include existing self-storage businesses, restaurants, a fitness center, various other commercial uses, and single-family residences.

4-P.10: Ensure that that scale and character of new development is appropriate for surrounding terrain and the character of existing development.

The management office will have an overall height of 20 feet and the height of the storage buildings will range from 12 feet to 14 feet. The proposed buildings will be single-story and will be compatible in scale and character to development in the surrounding area. The storage buildings will be located approximately 64 feet from Wabash Avenue, approximately 27 feet from Naples Avenue, and approximately 45 feet from Jasper Avenue. Overall, the size and design of the new development will be appropriate to the surrounding terrain and the character of existing development in the area.

4-P.20: Provide for the concentration of office, industrial, and commercial uses in appropriate locations near transportation corridors to encourage the development of employment centers and reduce the potential for land use conflicts with sensitive uses.

The project site is within the Highway Commercial zoning district (see Attachment D). The C-4, Highway Commercial zone allows the uses within the General Commercial zone (which include offices) and the proposed project includes an Ordinance Text Amendment that would specifically allow self-storage facilities in the C-4, Highway Commercial zone on properties a minimum of five acres in size as a conditional use. The project will have direct access from Wabash Avenue and is located south of Mentone Boulevard (California State Route 38) which is a major thoroughfare that runs in an east-to west direction through Redlands and Mentone. The proposed use is appropriate and consistent with the surrounding neighborhood characteristics which include commercial, light industrial, and residential uses.

B) Ordinance Text Amendment and Zoning

The C-4, Highway Commercial zone is intended to “provide for the development of commercial enterprises adjacent to the major thoroughfares of the community.” The Highway Commercial zone allows the uses permitted within the C-3, General Commercial District which include offices and a variety of retail stores and personal services. At present, the C-4 district does not permit mini-storage facilities, therefore the applicant proposes an amendment to RMC Section 18.96.070 (Conditional Uses) that would allow mini-storage facilities in the C-4 district on sites of at least five (5) acres, and with approval of a Conditional Use Permit. This ordinance text amendment is necessary to allow the proposed project. The specific language in the list of conditional uses for the C-4 district would state, “Self-storage or mini-storage facilities on a project site with a minimum size of five acres.”

The proposed project meets all applicable C-4 development standards, as summarized in Table 1 below. A detailed assessment is provided in Attachment E (Table of C-4 Development Standards).

Table 1. Summary of Highway Commercial (C-4) Development Standards

Development Standard	*Requirement*	*Proposed*	*Complies*
Lot Size	None	6.34 acres	Yes
Lot Coverage	50% maximum	Overall lot coverage: 44.7%	Yes

Front Setback	None	63’10”	Yes
Side Setback	None; except where the zone adjoins a residential zone, minimum 10 feet	15’ (Naples Avenue) and 16’1” (south property line)	Yes
Rear Setback	None	33’2’ (Jasper Avenue)	Yes
Building Height	None (no maximum limit)	20’ (Leasing office) 12’ to 14’ (Storage buildings)	Yes Yes
Floor Area Ratio	Maximum 4 square feet of total floor area for each one square foot of total lot area	0.45	Yes
Site Landscaping	20.0% minimum	20.6%	Yes

C) Conditional Use Permit

Land Use: The subject site is surrounded by developed properties in all directions including commercial and residential uses to the north and west of the site. Properties immediately adjacent to the east and south of the project site contain existing RV and Boat storage uses. Additional storage uses can be found further to the south of the project site as well as beyond Nice Avenue. The proposed land use is compatible with existing uses in the surrounding area and would not cause a disruption to those existing operations. Rather, the proposed use would provide a needed service to residents and business owners in the area as it is conveniently located in an easily accessible location that contains single-family residential neighborhoods to the west (across Wabash Avenue), to the south (beyond Colton Avenue), and to the north (across Mentone Boulevard), plus nearby retail and industrial businesses.

As currently written, the Highway Commercial Zoning (C-4) zone does not list self-storage facilities as a permitted or conditionally permitted use in the zoning district. However, the project proposes an Ordinance Text Amendment which would amend RMC Section 18.96.070 by adding self-storage facilities as an allowable use on parcels that are five (5) acres or more in size with the approval of a conditional use permit. The project will comply with all applicable C-4 development standards. Conditions of approval are also included to ensure compliance with code requirements.

Parking and Circulation: For office uses, the code requires one (1) space per 250 square feet of gross floor area and a minimum of four (4) spaces, and the proposed office area totaling 700 square-feet will require four (4) parking stalls. The proposal provides five (5) parking stalls including one (1) ADA accessible parking stall, and a bike rack for two (2) bicycles. The parking area is located off of Wabash Avenue and adjacent to the proposed leasing office. No parking is required for the storage units, and the drive aisles provide the necessary loading and unloading space for the units.

The code allows stall depths to be reduced by one foot (1’0”) where the parking space is adjacent to a 6’0” or wider sidewalk, and is provided adjacent to the leasing office. The parking stalls will have a width of 9’0” and a depth of eighteen 18’0”.

Ingress and egress is provided from via two driveways, one located on Wabash Avenue (west side of project site) and one located on Jasper Avenue (east side of project site). Additionally, all driveway entrances throughout the project site meet the minimum 26-foot width for driveways with two-way traffic.

Landscaping: Detention basins are proposed along the front of the property along the Wabash Avenue frontage, and will have appropriate landscaping. Perimeter landscaping is being proposed throughout the project site (see Attachment F). The proposed landscaping will consist of a combination of trees, shrubs, and groundcover. The landscape plan consists of a total of 111 trees (the majority being planted around the project site’s perimeter for screening purposes) and a wide variety of shrub mixes that will be planted around the perimeter of the site. The landscaping proposed around the storage buildings include screen trees, Evergreen trees, and shrubs. The box sizes for the proposed trees range from a 15-gallon tree to a 24-inch box tree, and shrubs will consist of a combination of 1-gallon to 15-gallon sizes. The landscape plan indicates that 64,681 square feet will consist of landscaping (or 20% of the site), and therefore, the requirement for 20% landscaping is met. The proposed landscaping will be drought tolerant and will be required to comply with the City’s Water Efficient Landscaping Ordinance and the Redlands Municipal Code landscaping requirements.

Elevations and Design: The proposed 700 square foot leasing office building that is located just east of Wabash Avenue has a contemporary design that consists of a white stucco wall finish, an aluminum storefront with clear glass and a charcoal gray metal canopy with a standing seam metal roof. The leasing office will also include a red stucco trim. The architectural treatment is visible along the north, east and west elevations which are the sides that are primarily visible from the public right of way. The entrance to the office building is oriented towards the parking lot area and also consists of a charcoal gray mental canopy that will provide shade area along the entrance. Overall, the office building provides articulation, architectural elements, and texture.

The building material for the storage buildings and units will consist of stucco walls in various tones of gray. The north, south (corner), and east (corner) elevations also feature stone veneer columns and bases in gray color tones. The storage units will also include red roll-up metal doors. The proposed color palette for the rolling doors and the trim detail at the office along with the stone veneer columns and bases at the leasing office building entrance will serve as architectural accent materials and colors.

New construction over 500 square-feet is subject to review by the Planning Commission per RMC Chapter 18.12 and requires architectural review by the Commission. The Commission reviews the project to determine whether the proposed development is in conformity with RMC Section 18.12.170 (Site Plan Approval Procedures), Architectural Review Criteria (see Attachment G), and if approval of the plan is in the best interest of the public health, safety, and general welfare. It is intended that design submittals be compatible with the character of adjacent and surrounding developments, and that they be of comparable composition, materials, textures and colors. Conformance is evaluated based on the following seven criteria.

1. Site layout, orientation, location of structures and relationship to one another, as well as open spaces and topography.

The proposed project meets all applicable development standards in terms of floor area ratio, setbacks, and the landscape requirements. The proposed site layout, building orientation, location of structures and relationship to one another are cohesive, supporting the development. The site will be accessed by one driveway located along Wabash Avenue and one driveway located along Jasper Avenue. Landscaping has been proposed around the perimeter of the site with landscaped detention basins being located along Wabash Avenue, which provides additional separation from the proposed storage unit buildings and the existing residential uses to the west of Wabash Avenue.

2. Harmonious relationship of building with existing and proposed adjoining developments.

The proposed site is surrounded by commercial and residential developments on all four sides. The property is currently vacant and located south of Mentone Boulevard (California State Route 38), which is a major thoroughfare that runs in an east-to west direction through Redlands and Mentone, and contains a wide variety of commercial uses along the roadway. The project proposes stucco as the primary finish material in various gray tones. The materials and colors proposed for the buildings will complement the adjoining developments, including the storage operation to the south of the subject site which contains canopies (with red-tone accents) as well as the new Jack in the Box restaurant located to the north of the subject site (and contains red architectural accents).

3. Maximum height, area, setbacks and overall mass of building, as well as other structures such as walls, screens, towers or signs, and effective concealment of all mechanical equipment.

The project will conform to the C-4 development standards in terms of maximum height, area, setbacks, and other applicable development standards. The project will conform to City of Redlands Municipal Code parking requirements.

4. Harmony of construction materials and colors in relation to all exterior elevations.

The proposed architectural elements of the buildings are consistent with the surrounding buildings in terms of material and color. The proposed color palette consists white and gray tones for exterior building walls with stone veneer and red stucco trim accents at various portions of the buildings. The leasing office will also include an aluminum storefront system with clear glass.

The proposed architectural design of the building is consistent with commercial development found in the area, by providing similar building materials and colors that provide interest to all sides of the building and additional detailing at more visible locations. The building will have a varied roofline, with the tallest point at the leasing office, and various stone veneer columns and bases along the north elevation. With the enhancements proposed by the applicant, the architecture will be in keeping in quality with the surrounding buildings and the city's Architectural Design Guidelines.

5. Location and type of planting, with due regard for the preservation of specimen trees upon a site.

The project is subject to the minimum landscape requirements established under the Municipal Code. A minimum of 7% of the parking lot areas are required to be landscaped (or 68 square feet) and the project proposes approximately 137 square feet of parking lot landscaping. The Municipal Code requires that trees be planted at a minimum of 1 tree for every 3 parking stalls,

and one tree will be provided. The landscaping plan includes a total of 111 trees located throughout the project site, with the majority of the trees being planted at the project site's perimeter for screening purposes. Conditions of approval are also included to ensure compliance with all landscaping standards in the RMC during the plan check review process.

6. Design and appropriateness of signs in relation to the architectural style of the building.

This finding does not apply as signage shown on elevation renderings are for reference only. The developer will be required to file an application for a sign consistent with the City of Redlands Municipal Code requirements.

7. Glazing or image reflective surfaces (specular reflectance) shall be limited to a maximum reflectance value of twenty five percent (25%). "Specular reflectance" means any mirror like reflection, as contrasted to diffused reflection from such surfaces as concrete or vegetation.

The project proposes an aluminum storefront system with clear glass glazing, however, specifications on reflectance is not provided. A condition of approval has been added to the project that specifies specular reflectance shall be limited to a maximum of 25%.

D) Street Vacation

The applicant has filed an application to vacate a portion of public right-of-way (approximately 425 feet in length and 3'0" in width) for the entire frontage of the project site along Jasper Avenue. The existing street is 66 feet wide (i.e., half-width of 33 feet from street centerline to the property line of the subject property). The proposal would reduce the half-width to 30 feet along the project site's frontage on Jasper Avenue. The legal description and associated exhibit showing the proposed vacation area is provided in Attachment H, Street Vacation Exhibit.

General Plan chapter 5, "Connected City," contains Figure 5-5 "Roadway Classifications" and designates Jasper Avenue as a Local Road, and the proposal would be consistent with this designation. A "Local Road" has the sole function of providing access to adjoining land uses, and in this case, this road segment does not experience heavy traffic because the surrounding land uses do not have driveways or access points along this segment of Jasper Avenue. The surrounding land uses (Mentone Beach RV and Boat Storage to the immediate east and south) take their access further to the south along Nice Avenue and a driveway on Jasper Avenue adjacent to Nice Avenue (and not near the proposed project site).

California Government Code Section 65402(a), the State Planning and Zoning Laws requires that prior to considering a vacation or abandonment of any public right-of-way, the planning agency (Planning Commission) shall review the matter and render its report as to the proposed vacation and quit claim conformity with the City's General Plan.

The Project Site is designated for Commercial land use in the General Plan. Wabash Avenue adjacent to the project site is identified as a Minor Arterial road, and Jasper Avenue adjacent to the project site is identified as a Local Road. With the proposed street vacation of 3'0", the Jasper Avenue right-of-way would be 60 feet wide. Local Roads are two-lane roads with 60 feet dedicated for public right-of-way, and the proposal would be consistent with the General Plan.

E) Socio-Economic Cost/Benefit Study

Measure U requires a socio-economic cost/benefit study for project involving structures larger than 5,000 square feet. A Socio-Economic Cost/Benefit Study was prepared for the project (see

Attachment I). According to the cost/benefit model used by the City, the project will result in an annual non-residential revenue of $30,965 and annual cost to the City totaling $5,575. Annual surplus revenue generated by the project is anticipated to be approximately $25,390.50 which will result in a positive cost/benefit ratio of 5.55 for the years 2024 through 2033. The proposed project will not create a physical blight or overburden public services in the community, and no additional information or evaluation is needed.

ENVIRONMENTAL REVIEW

The City retained an environmental consultant to analyze the project and prepare an Initial Study (Attachment J) in accordance with the California Environmental Quality Act (CEQA). The Notice of Intent was filed with the County Clerk on August 19, 2022, and with the State Clearinghouse (SCH No. 2022080371). The NOI was published in a newspaper of general circulation on August 17, 2022, and the NOI mailed to property owners within a 300-foot radius of the project site. Per the CEQA Guidelines, the Initial Study was made available for public review and comment for 30 days from August 18, 2022, through September 19, 2022. Documents were also made available on the City's website (www.cityofredlands.org/post/environmental-documents).

During the public review period, one public comment letter was received from San Bernardino County Department of Public Works. No changes to the IS/MND or mitigation measures are necessary as a result of the comments, and City staff as well as City's environmental consultant have reviewed the responses to comments. The proposed mitigation measures will be included as Conditions of Approval for the project. Based on the analysis and information available in the Initial Study, a Mitigated Negative Declaration is the appropriate environmental determination.

FINDINGS

1. That the proposed development will not adversely affect the applicable land use plans of the city.

The proposed self-storage facility will not adversely affect the applicable land use plans of the City. The proposed buildings were designed in compliance with the City's General Plan land use policies as well as the development standards of the Highway Commercial (C-4) zone. As such, the operation of the proposed self-storage facility with the approval of a Conditional Use Permit will be in conformance with the land use plans of the City.

2. That the proposed development will not be detrimental to the public health, safety and welfare.

The proposed self-storage facility will not be detrimental to the public health, safety, and welfare. Conditions of Approval have been attached to Conditional Use Permit No. 1168 to ensure that there will be no detrimental effects to public health, safety, and welfare. The self-storage facility will operate within a zoning district developed to accommodate a variety of commercial uses. The site will provide sufficient on-site parking for customers and employees. Therefore, the proposed development will not be detrimental to the public health, safety and welfare.

3. That the proposed development will comply to the maximum extent feasible with the regulations of the city's general plan, the applicable zoning district and the city's development standards.

The proposed self-storage facility complies with the regulations of the City's General Plan. With the adoption of Ordinance Text Amendment No. 363, the proposed project will be in compliance with the Highway Commercial (C-4) zoning district, in that the proposed amended language of

the zoning district would allow “Self-Storage or mini-storage facilities on a project site a minimum size of five (5) acres” as a use that requires a Conditional Use Permit in the district. In addition, the site is adequate in size and shape to accommodate the proposed use.

4. That the proposed development is appropriate at the proposed location.

The proposed self-storage facility is appropriate for the subject location, as the site is adequate in size and shape to accommodate the use. The proposed use will provide a needed service to local residents and is conveniently located on a major commercial corridor. The project has been reviewed for compliance with the applicable development standards of the Highway Commercial (C-4) zoning district and the buildings were designed with an architectural theme that is consistent with the City’s Architectural Review Criteria. On-site parking will also be sufficient to accommodate the proposed use.

RECOMMENDATIONS

Staff recommends that the Planning Commission adopt Resolution No. 1591 and recommend that City Council approve Ordinance Text Amendment No. 363, approve Street Vacation No. 186, adopt the Socio-Economic Cost /Benefit Study prepared for the project, and approve Conditional Use Permit No. 1168 subject to the attached Conditions of Approval.

MOTIONS

If the Planning Commission deems it appropriate, staff recommends the following motion.

“I move that the Planning Commission adopt Resolution No. 1591 and recommend that City Council:

- Approve Ordinance Text Amendment No. 363;
- Approve Street Vacation No. 186;
- Adopt the Socio-Economic Cost/Benefit Study prepared for the project; and,
- Approve Conditional Use Permit No. 1168 subject to the attached Conditions of Approval.”

Attachments

Attachment A: Location Map & Aerial Photo

Attachment B: Site Plan

Attachment C: General Plan Land Use Map

Attachment D: Zoning Map

Attachment E: Table of C-4 Development Standards

Attachment F: Landscape Plan

Attachment G: Architectural Review Criteria

Attachment H: Street Vacation

Attachment I: Socio-Economic Cost/Benefit Study

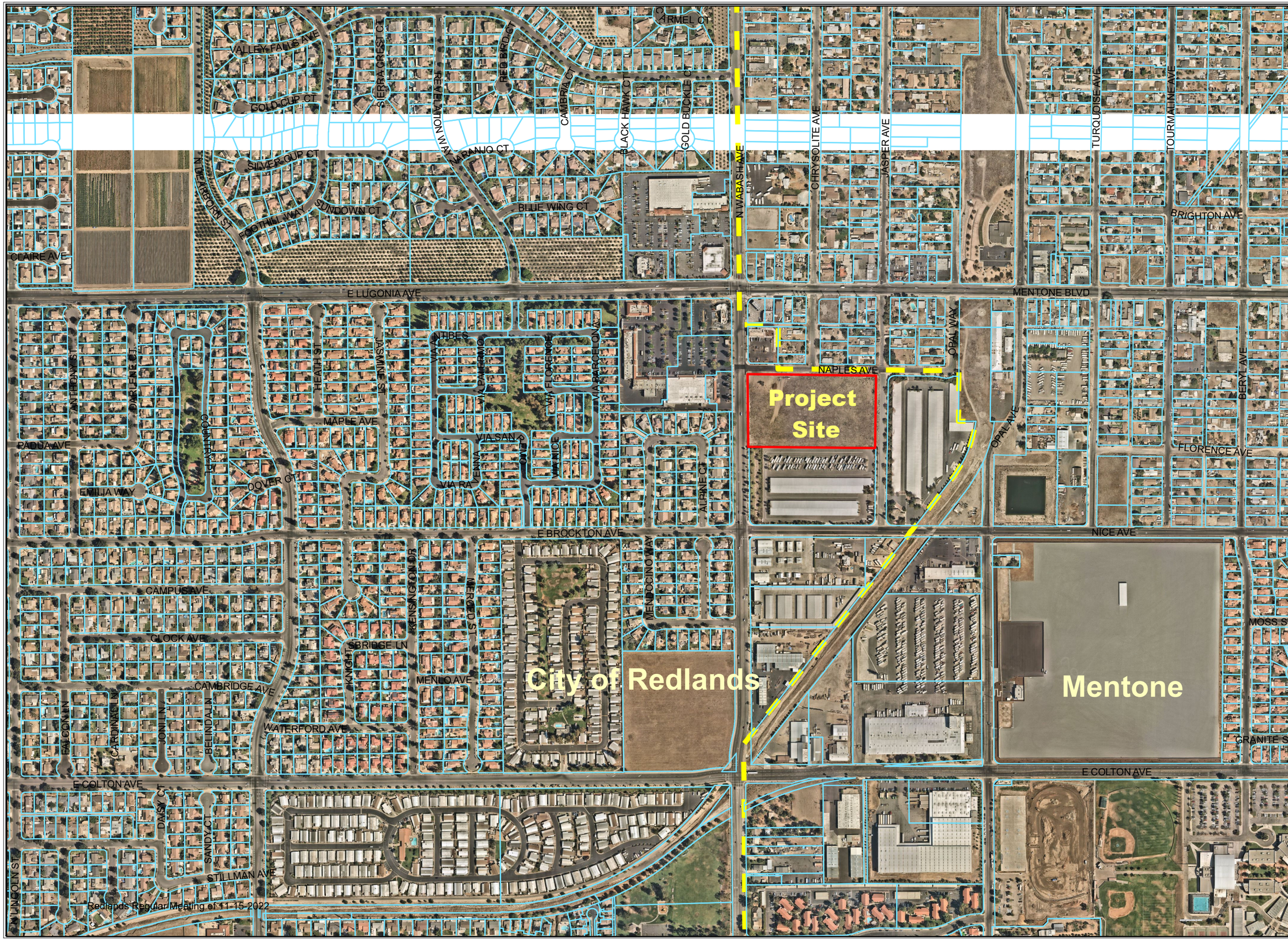
Attachment J-1: Initial Study/Mitigated Negative Declaration

Attachment J-2: Mitigation Monitoring & Reporting Program

Attachment J-3: Comments on IS/MND

Attachment K-1: Resolution No. 1591

Location Map



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City of Redlands
Department of Innovation & Technology
Geographic Information Systems

City of REDLANDS "A City That Works"

September 26, 2022

OneStop.mxd

Aerial Photo

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City of Redlands "A City That Works"

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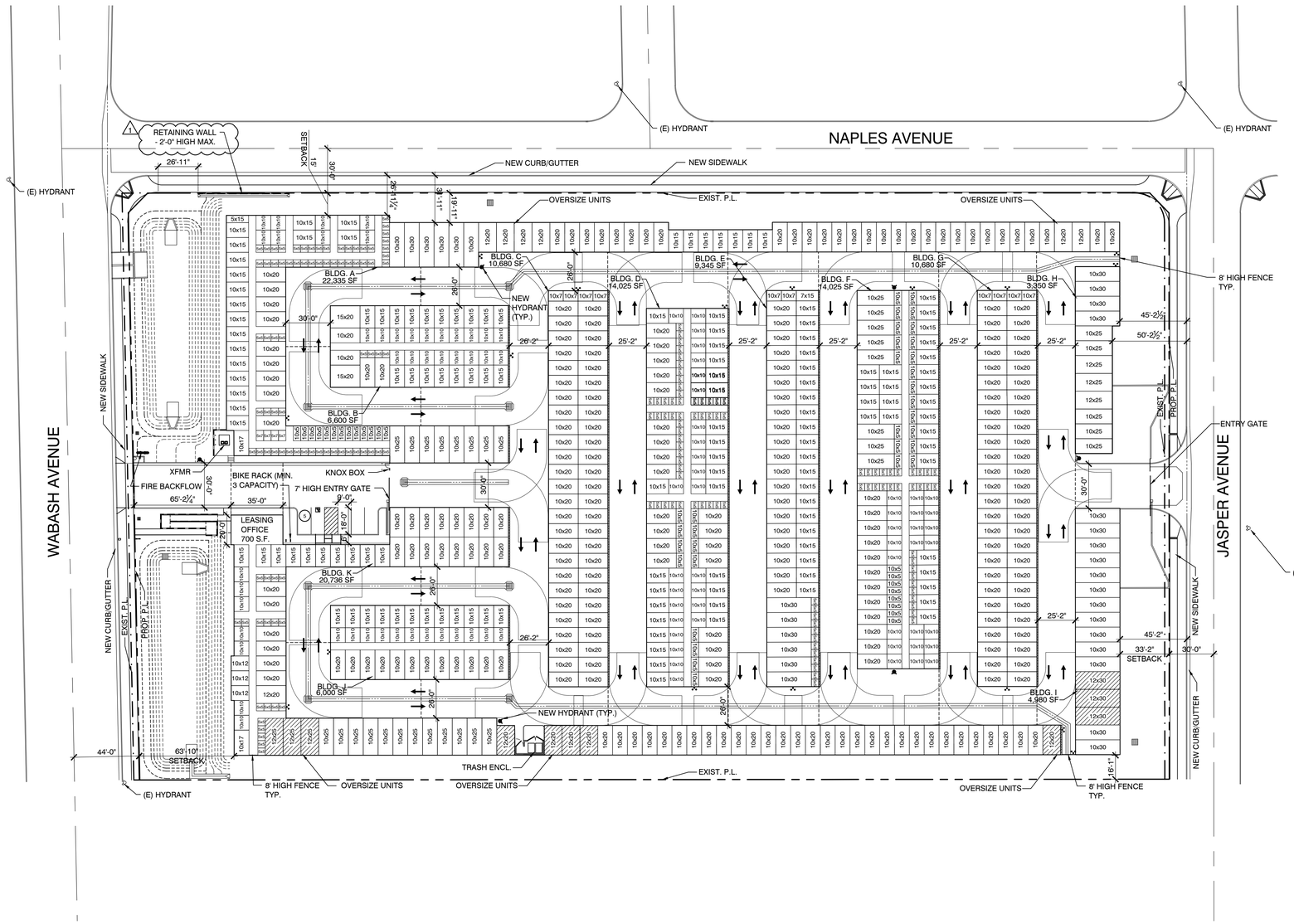

LOCATION MAP

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SITE SUMMARY

OWNER - MADISON CAPITAL GROUP
Contact: Dave Bird, Senior VP Construction and Development
450 Newport Center Drive, Suite 250
Newport Beach, CA 92660
c 909.215.4650
dbird@madsioncapgroup.com

ASSESSORS PARCEL NUMBER:	0298-051-07
ZONING	C-4 (COMMERCIAL)
TOTAL SITE AREA: NET +/- 276,228 SF ± 6.34 AC 7.54 AC GROSS	
SITE FAR:	± .45/1
BUILDING:	123,456 SF
OFFICE AREA (INCL. IN BLDG./COVERAGE AREA)	700 SF
BUILDING COVERAGE:	123,456 SF - 44.7%
PAVED AREA:	95,396 SF - 34.7%
LANDSCAPE AREA:	56,982 SF - 20.6%
PARKING PROVIDED :	5 STALLS
PARKING REQUIRED :	700 SF OFFICE/250 = 3 (4 MIN. REQ'D.)

BUILDING SF

	SF PER BUILDING
LEASING OFFICE	700 SF
BUILDING A	22,335 SF
BUILDING B	6,600 SF
BUILDING C	10,680 SF
BUILDING D	14,025 SF
BUILDING E	9,345 SF
BUILDING F	14,025 SF
BUILDING G	10,680 SF
BUILDING H	3,350 SF
BUILDING I	4,980 SF
BUILDING J	6,000 SF
BUILDING K	20,736 SF
TOTAL	123,456 SF

	RENTABLE SF	#UNITS
	114,780 SF	835
AVERAGE UNIT SIZE	137	
REGULAR PARKING	5	
TOTAL	5	

UNIT COUNT

#	SIZE			QTY	RENTABLE	TYPE
1	5	X	5	170	4,250 SF	CC
2	5	X	7	4	140 SF	CC
3	10	X	5	40	2,000 SF	CC
4	5	X	15	1	75 SF	CC
5	10	X	10	87	8,700 SF	CC
6	10	X	12	3	360 SF	CC
7	10	X	15	25	3,750 SF	CC
SUB TOTAL:				330	19,275 SF	CC
8	5	X	5	12	300 SF	DU
9	10	X	5	13	650 SF	DU
10	7	X	10	10	700 SF	DU
11	7	X	15	1	105 SF	DU
12	10	X	10	7	700 SF	DU
13	10	X	15	112	16,800 SF	DU
14	10	X	17	2	340 SF	DU
15	10	X	20	263	52,600 SF	DU
16	10	X	25	33	8,250 SF	DU
17	10	X	30	29	8,700 SF	DU
18	12	X	20	12	2,880 SF	DU
19	12	X	25	6	1,800 SF	DU
20	12	X	30	3	1,080 SF	DU
21	15	X	20	2	600 SF	DU
SUB TOTAL:				505	95,505 SF	DU
TOTAL				835	114,780 SF	CC/DU

GO StoreIt SELF STORAGE

SITE PLAN
Scheme A

Scale : 1" = 40'

0 20' 40' 80'

N

REDLANDS, CA

DATE:	03-28-2022
MCG JOB #:	21627.01

DATE	REVISIONS
3.14.22	REV. PER INITIAL CITY COMMENTS
1 05.05.22	REVISED PER CITY COMMENTS

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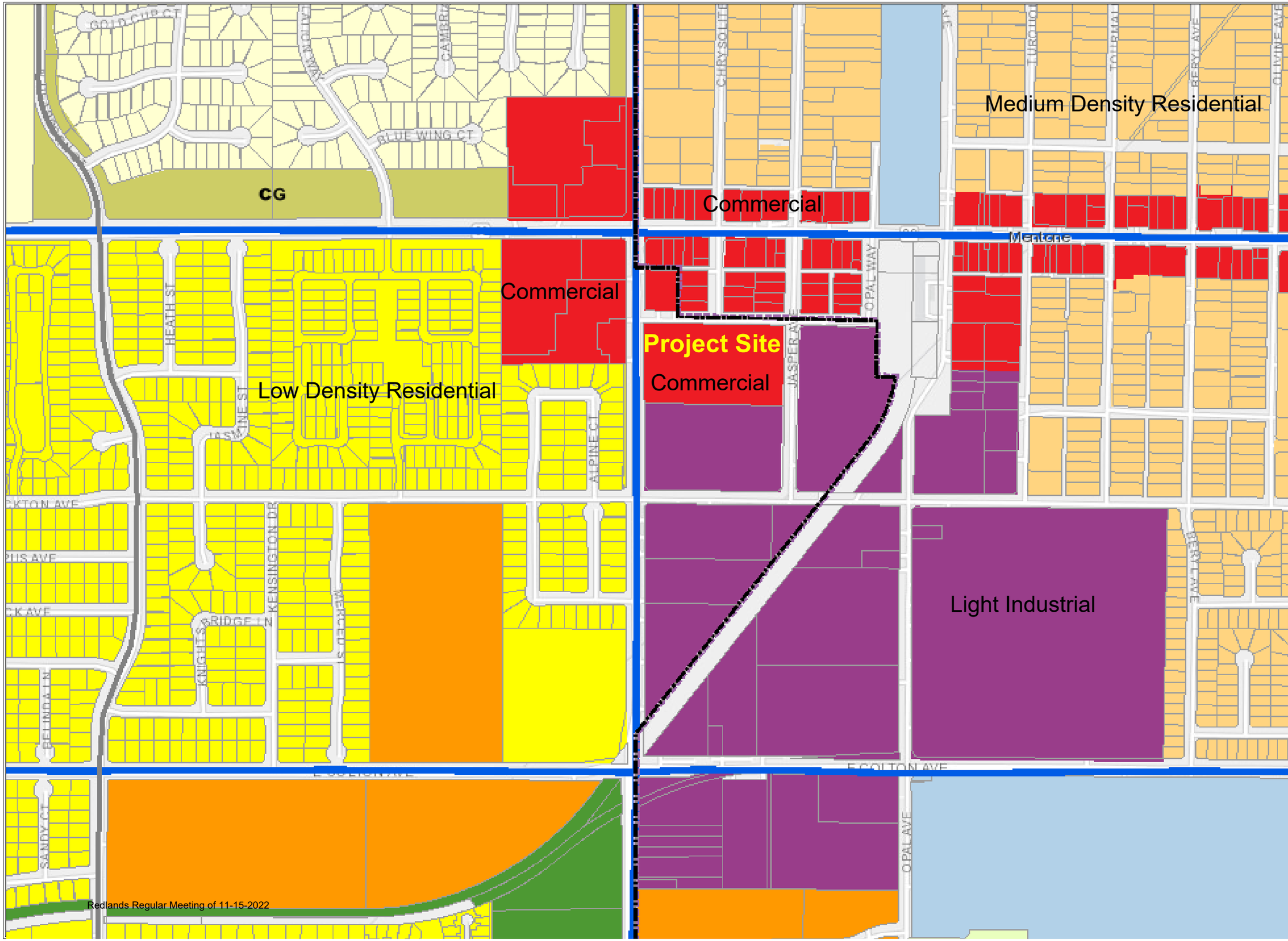
NOTE: This information is conceptual in nature and is subject to adjustments pending further verification and Client, Tenant, and Governmental Agency approvals. No warranties or guaranties of any kind are given or implied by the Architect.

CLEVELAND
DENVER
GLENDORA
IRVINE
ORLANDO
PHOENIX
SAN FRANCISCO

mgc SM
mcgarchitecture.com

General Plan Land Use Map



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Geographic Information Systems

City of Redlands "A City That Works"

September 14, 2022

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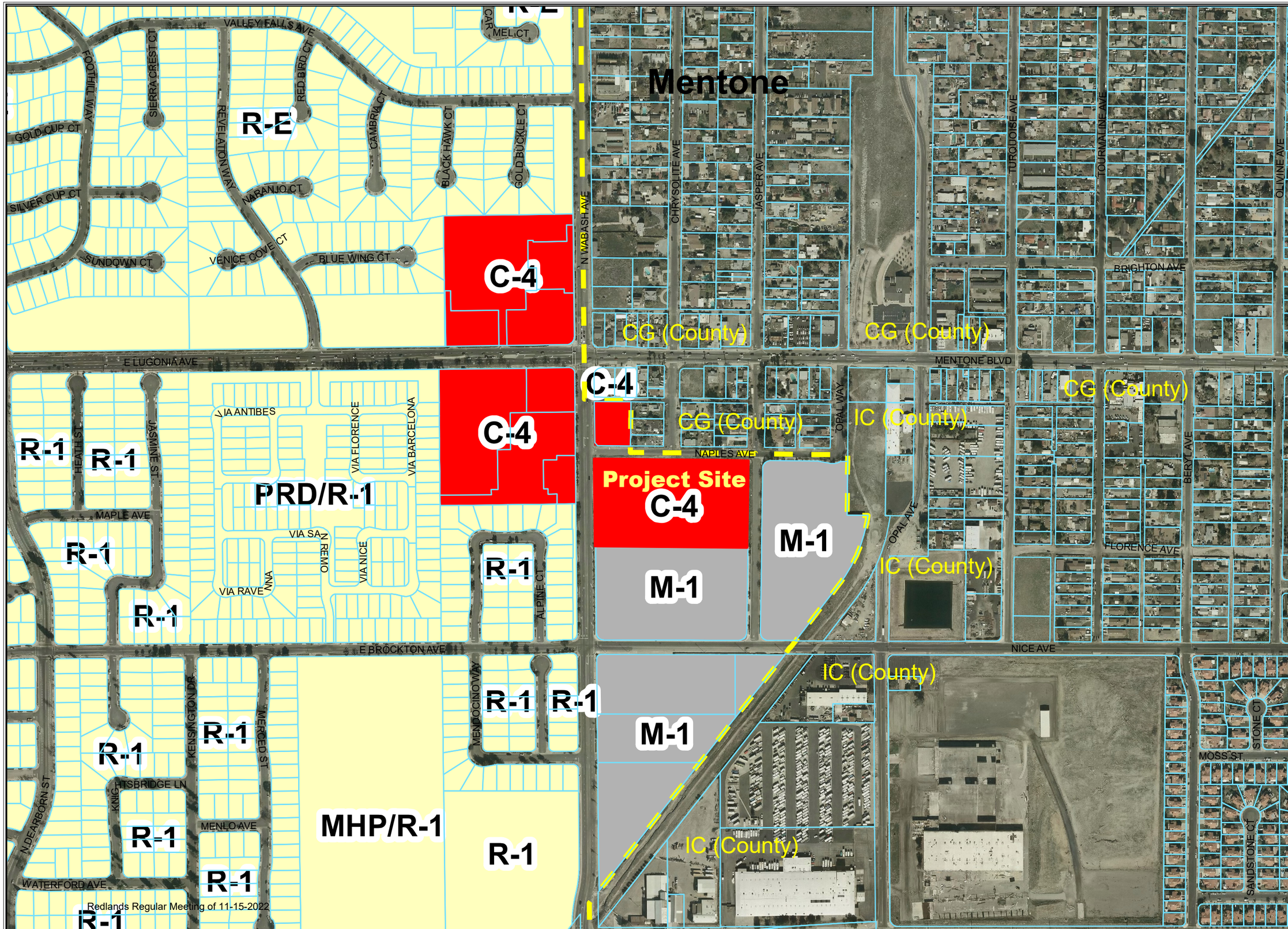

Zone Map

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September 26, 2022

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Go Store It Self-Storage – Conditional Use Permit No. 1168 – General Plan Policy Consistency

The project is consistent with General Plan policies from Chapter 4, Livable Community, such as the following policies.

4-P.3: Focus new development in infill areas in order to preserve open space, agriculture, and citrus groves, particularly around the edges of the City.

The project is being proposed on a 6.34-acre infill site that is surrounded by development on all four (4) sides of the subject site; thereby, aiding in the preservation of open space, agriculture and citrus groves in the City.

4-P.7: Promote a diversity of compatible land uses throughout the city, providing opportunities for the development of a range of businesses, services, residential types, and public facilities to meet the needs of the community.

The proposed 123,456 square foot storage facility will be compromised of eleven (11) detached buildings consisting of 835 storage units and a separate 700 square foot leasing office. The project will serve as an added amenity to the community and to the adjacent cities by providing a service where individuals or business owners are able to store their goods either short term or long term. The proposed use is surrounded by a range of uses which include existing self-storage businesses, restaurants, a fitness center, various other commercial uses and single-family residences.

4-P.10: Ensure that that scale and character of new development is appropriate for surrounding terrain and the character of existing development.

The management office will have an overall height of 20 feet and the height of the storage buildings will range from 12 feet to 14 feet. The proposed office building will be located east of Wabash Avenue and will be compatible in scale and character to development in the surrounding area. The storage buildings will be located approximately 64 feet from Wabash Avenue, approximately 27 feet from Naples Avenue and approximately 45 feet from Jasper Avenue. Overall, the size and design of the new development will be appropriate to the surrounding terrain and the character of existing development in the area.

4-P.20: Provide for the concentration of office, industrial, and commercial uses in appropriate locations near transportation corridors to encourage the development of employment centers and reduce the potential for land use conflicts with sensitive uses.

The project site is within the Highway Commercial zoning district (see Attachment D). The Highway Commercial zone allows the uses within the General Commercial zone which include offices and the proposed project includes an ordinance text amendment that would specifically allow self-storage facilities in the Highway Commercial zone on properties a minimum of five acres in size as a conditional use, subject to a Conditional Use Permit. The project will have direct access from Wabash Avenue and is located just

south of Mentone Boulevard/California State Route 38 which is a major throughfare that runs in an east-to west direction through the City. The proposed use is appropriate and consistent with the surrounding neighborhood characteristics which include commercial, light industrial, and residential.

Highway Commercial (C-4) District
(RMC Title 18, Ch. 18.96)

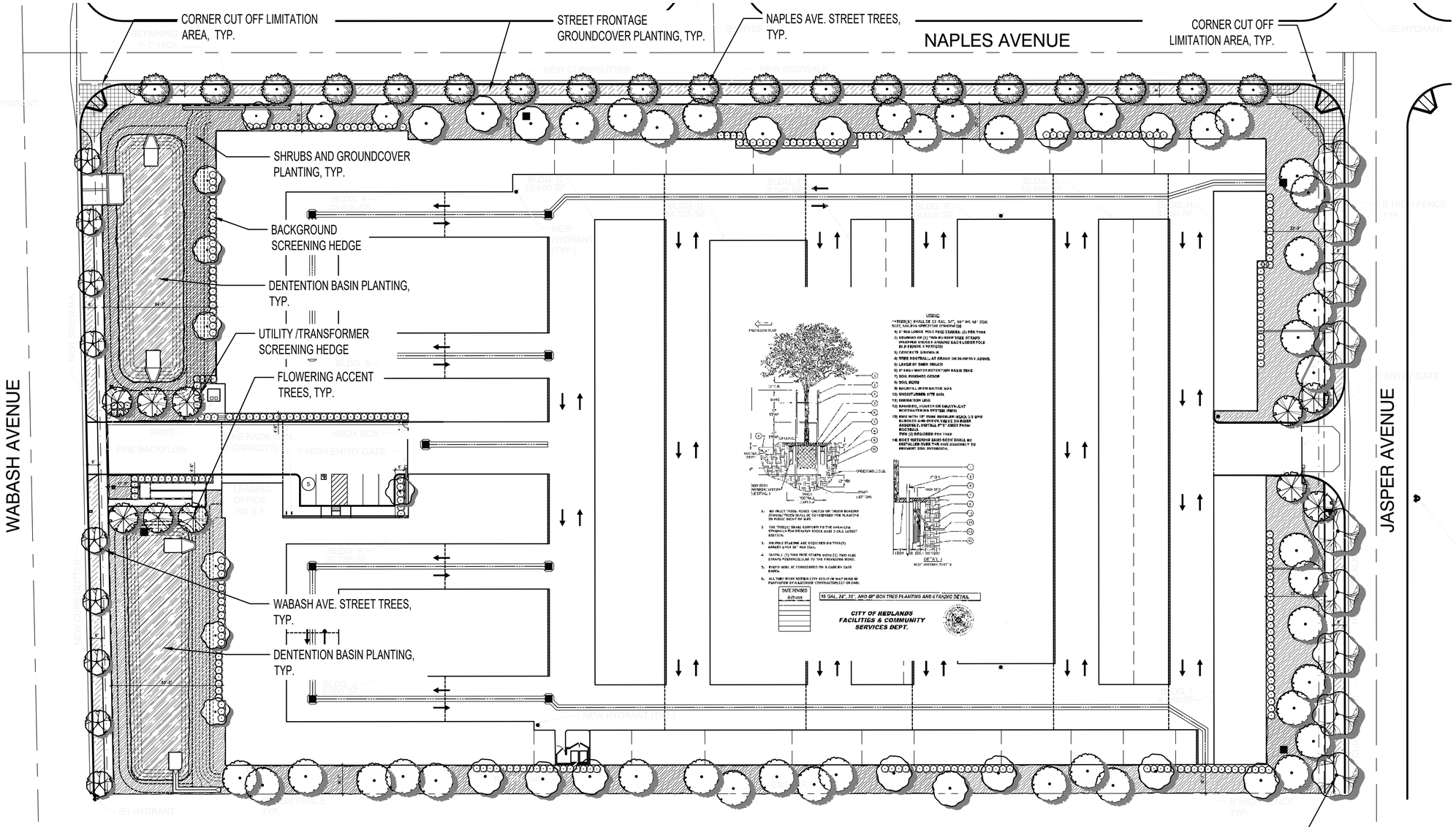
DEVELOPMENT STANDARD	REQUIREMENT	PROPOSED	COMPLIES ?
Lot Area 18.96.100	No requirements	276,228 sq. ft. or 6.34 acres	Yes
Lot Dimensions 18.96.110	No requirements	North: 776.14 feet East: 425.15 feet South: 767.79 feet West: 425.70 feet	Yes
Max. Structure Height 18.96.120	No height limit, except that the relationship between building floor area and lot area shall not exceed four (4) square feet of total floor area for each one square foot of total lot area.	Height varies: 12 feet to 20 feet	Yes
Floor-Area Ratio (F.A.R.) 18.96.120	4.0 Maximum (the floor area of parking garages and related structures located at or above ground level shall be included in the calculation ratio)	0.45	Yes
Lot Coverage 18.96.160	50% Maximum Exceptions may be granted by the commission where underground, multilevel or covered parking is provided.	44.7%	Yes
Yards 18.96.130 (18.92.140)	No requirements (standards of C-3 district apply) A. Front Yard: No requirements. B. Side Yard: No side yard requirements, except where the C-3 zone adjoins or is across the street from a residential zone, in which case there shall be a side yard of not less than 10 ft. on the side or sides adjoining the street or residential zone (the yard shall be landscaped and maintained). C. Rear Yard: No requirements.	Front Yard: Naples Ave: 15 feet Wabash Ave: 63'-10" Jasper Ave: 33'-2" No side yards 16'-1"	Yes Yes Yes
Access to Street 18.96.150	All lots in C-4 zones shall have access on a dedicated and improved street.	Access provided along Wabash Ave and Jasper Ave.	Yes
Noise Control 18.96.220	All noise producing equipment, such as compressors, heating and air conditioning units, etc., shall be insulated or enclosed so as to be inaudible at the property lines.	Condition of Approval will be added.	Verified in plan check.
On-Site Parking Required 18.164.240	Offices (general): 1 space/250 sq. ft. (min. of 4) *Minimum Required = ____4___*	5 parking stalls	Yes
Parking Space Location 18.164.250	The off street parking facilities required by this title shall be located on the same lot or parcel of land as the use they are intended to serve	Proposed parking stalls located on site.	Yes
Parking Space Dimensions 18.164.260	• Standard spaces: 9' wide by 19' deep.	9 ft. by 18 ft. (Adjacent to a 6 ft.	Yes

DEVELOPMENT STANDARD	REQUIREMENT	PROPOSED	COMPLIES ?
	• Stall depths may be reduced up to 1 ft. (or 18'0" total) where pkg space adjacent to a 6 ft. or wider sidewalk.	sidewalk)	
Access to Parking 18.164.270	A. Forward travel to and from parking facilities from a dedicated street or alley is required. The parking area shall be adequate to facilitate the turning of vehicles to permit forward travel upon entering a street. B. All uses which adjoin a major or secondary highway shall, wherever possible, have access by way of a service road or alley. C. The access to all off street parking facilities shall be designed in a manner which will not interfere with the safe movement of traffic. D. Concrete driveway approaches shall be provided for ingress to and egress from all parking facilities. Each parking space shall be easily accessible to the intended user. The width of driveway entrances and exits from a public street shall be measured at the property line and shall comply with the following standards, unless specific exemptions are made by the director of public works: - single lane: 14 ft. - combined entrances or exits: 26 ft. - maximum driveway width: 30 ft.	Access will be provided along Wabash Ave and Jasper Ave. Combined entrances or exits are 26 feet or 30 feet.	Yes
Parking Area Circulation 18.164.280	- Stall depths may be reduced up to one foot (1') where the parking space is adjacent to a six foot (6') or wider sidewalk, or adjacent to a landscaped planter with an interior diameter of five feet (5') or more. - Parking angle and required dimensions: 90-degree spaces: 19' deep & 26' two-way aisle 60-degree spaces: 21' deep & 22' two-way aisle 45-degree spaces: 20' deep & 20' two-way aisle - Directional signs shall be required to differentiate between entrance and exit access points to the street.	Parking stalls reduced up to 1 foot and is adjacent to a 6-foot sidewalk Need to provide 26 ft. two-way aisle throughout. The project has been conditioned for compliance	Yes
Parking Area Improvements 18.164.290 18.164.310	- When more than five (5) parking spaces are proposed for a parcel, a minimum of seven percent (7%) of such parking area shall be landscaped and maintained in accordance with the provisions of Chapter 18.168. - Parking lots intended for nighttime use shall be adequately lighted for safe vehicular and pedestrian movements. Lighting shall be arranged to reflect away from adjoining properties and streets.	14% landscaping provided in parking area Photometric lighting plan will be submitted in plan check.	Yes Yes
Parking Lot Landscape 18.168.210(A)-(C)	1. Landscaping shall be provided adjacent to and within parking areas to screen vehicles from view and to minimize the expansive appearance of parking areas.	Landscaping provided.	Yes

DEVELOPMENT STANDARD	REQUIREMENT	PROPOSED	COMPLIES ?
	The landscaping should include fast growing trees in the parking areas to create summer shade. Accent trees may also be utilized in the landscape design of the parking areas for diversity and seasonal color;		
	2. Landscaped berms, or a combination of berms, landscaping and/or wall treatments of sufficient height to substantially screen parking areas shall be provided between parking areas and right of way;	Parking lot will be screened	Yes
	5. All plant material shall be sized so that the landscaping has a mature appearance within 3 years; 6. Tree species should be selected with root growth habits that will not cause damage to sidewalks, curbs or other similarly paved surfaces, or such tree species should be sited away from such paved areas;	Condition of Approval will be added.	Yes
	7. Trees with a trunk height of not less than 6' shall be installed in the planters at each end of an aisle, at three (3) space intervals throughout the parking area, and at 20' intervals along the periphery of the parking area. Within parking areas, trees may be clustered in groups to achieve a more natural setting provided the total number of trees meets the previous planting requirements;		
	8. At least 50% of the trees shall be an evergreen variety and evenly distributed throughout the parking area;	83% evergreen variety	Yes
	9. At least 50% of the trees shall be 15-gallon in size, 25% shall be 24" box size, and 25% shall be 36" box size. All trees shall meet the following minimum caliper sizes. If the caliper size cannot be met at the container size then the developer shall increase the container size to meet the required caliper; - 15 gallon: ¾” to 1” - 24-inch box: 1¼” to 1¾” - 36-inch box: 2½” to 2¾”	15-gallon: 14% 24” box size: 59% 36” box size: 27%	Yes
	10. Planter areas shall also contain ground cover and/or flowering shrubs. Drought tolerant planting is suggested so that applicant/developer can comply with the water conservation in landscaping act;	A combination of shrubs and ground cover proposed.	Yes
	12. A landscaped island shall be provided for every 20 parking spaces;	Only 5 parking stalls proposed.	Yes
	13. Landscaped islands, inter-stall planters and periphery landscaping, together, shall total at least 7% of the total parking area; Total Parking Area (from plans): __974_ Sq. Ft. *Minimum Required = ____68____ Sq. Ft.*	14% provided at parking area.	Yes
	16. All landscape planters that are 10' or less in width		

DEVELOPMENT STANDARD	REQUIREMENT	PROPOSED	COMPLIES ?
	shall utilize measures such as root barriers or other deep watering system to minimize heaving of parking area pavement and curbs by tree roots; and 17. No landscaped area having a width of less than 5' shall be considered in the minimum landscaping requirement. 18. Pedestrian walkways shall be provided within parking areas to destination points.	Condition of Approval will be added. No landscape area less than 5 feet counted towards min. landscaping requirement. Pedestrian walkways are provided.	Yes, verified in plan check. Yes Yes
Off-Street Loading 18.96.180 18.164.330	A. Every commercial or industrial building hereafter erected or established shall have and maintain loading space as provided in Sect. 18.164.340.	Proposed use is a self-storage facility. Customers will drive up to their storage units.	Yes
Loading Spaces 18.164.340	• Commercial buildings: 105,001-and over *Minimum Required = __5__*	Proposed use is a self-storage facility. Customers will drive to their storage unit for loading/unloading purposes.	Yes
Corner Cutoff 18.168.010	• Streets; streets & alleys; private driveways & streets/alleys. • Where all private driveways intersect street or alley. • 45 degree angle with side or front P/L. • Minimum 10 ft. deep for 45 degree angle. • No visual obstruction within corner cutoff area.	Will need to indicate corner cutoff. Project has been conditioned for compliance.	
Fences & Walls; Permitted When 18.168.020	• Fences & Walls 3 ft. max. in front yard area. • Open fences 4 ft. max. within front yard (90% open). • Fences & Walls 6 ft. max. on side or rear P/L. • Corner cut-off provisions apply - no obstructions. • Minor Exception Comm.: over 6 ft. high in rear half of lot; except, may be up to 16 ft. high if not less than 10 ft. from any P/L. • Minor exceptions: see 18.168.040 to 18.168.100.	2-foot-high retaining wall proposed along Naples Ave 8 foot high wrought iron fence proposed adjacent to the buildings	Minor Exception Permit will be required for the 8 ft. high wrought iron fence
Outdoor Storage 18.96.120(G)	Exceptions from uses/activities within a completely enclosed building: Open storage of materials, products, and equipment, when such storage is enclosed by a fence, wall, buildings, or other means adequate to conceal such storage from view from adjoining property or the public street. However, this requirement shall not apply to the display of products or equipment offered for sale or rental, providing the display is maintained in a neat and orderly manner.	Indoor self-storage facility proposed. Outdoor storage or equipment storage not proposed.	Yes
Landscaping; Minimum Dimensions	The minimum width of any required landscaped area, or any form of fixed planter box used to satisfy required	Min. 5-foot landscaping planters	Yes

DEVELOPMENT STANDARD	REQUIREMENT	PROPOSED	COMPLIES ?
18.168.180	landscaping, shall be five feet (5'), unless otherwise specified in this title.	utilized to satisfy landscaping requirements.	
Transportation Control Measures 18.224.020	*When discretionary review is required:* A. New nonresidential and multi-family (of 10 or more units) developments or remodel, when discretionary review is required, shall install bicycle racks or secured lockers at a rate of one per thirty (30) parking spaces with a minimum of a three (3) space bicycle rack. B. New nonresidential and multi-family (of 10 or more units) developments shall provide on site pedestrian walkways and bicycle facilities to connect each building in the development to public streets.	Bike racks provided (min. 3 bike racks provided) On-site pedestrian walkways provided.	Yes Yes



CONCEPT PLANT SCHEDULE

FLOWERING ACCENT TREE	10	
Lagerstroemia indica x fauriei 'Tuscarora' / Tuscarora Crape Myrtle		36" Box, 2-1/2", M
WABASH AVE. STREET TREE	9	
ALTERANTING TREE SPECIES AT 35' O.C. MAX.		
Arbutus x 'Marina' / Marina Strawberry Tree		24" Box, 1-1/2", M
Pyrus calleryana 'Redspire' / Redspire Callery Pear		36" Box, 2-1/2", M
NAPLES AVE. STREET TREE	19	
ALTERANTING TREE SPECIES AT 35' O.C. MAX.		
Eucalyptus ficifolia / Red Flowering Gum		24" Box, 1-1/2", L
Tristania conferta / Brisbane Box		24" Box, 1-1/2", L
JASPER AVE. SREET TREE	9	
ALTERANTING TREE SPECIES AT 35' O.C. MAX.		
Cercis occidentalis 'Claremont' / Claremont Western Redbud		24" Box, 1-1/2", L
Quercus engelmannii / Engelmann Oak		36" Box, 1-1/2", L
VERTICAL BUILDING SCREEN TREE	16	
Tristania conferta / Brisbane Box		15 Gal., 3/4", L
SMALL EVERGREEN CANOPY TREE	10	
Geijera parviflora / Australian Willow		36" Box, 2-1/2", L
EVERGREEN PERIMETER TREE	38	
Brachychiton populneus / Kurrajong		24" Box, 1-1/2", L
BACKGROUND/SCREENING SHRUBS	294	
Agave x 'Blue Glow' / Blue Glow Agave		15 Gal., VL
Ceanothus griseus horizontalis 'Yankee Point' / Yankee Point Carmel Creeper		5 Gal., VL
Cistus x hybridus / White Rockrose		5 gal., L
Cotoneaster lacteus / Red Clusterberry Cotoneaster		5 Gal., L
Hesperaloe parviflora / Red Yucca		5 Gal., VL
Leucophyllum frutescens 'Green Cloud' TM / Green Cloud Texas Ranger		5 Gal., L
Westringia fruticosa 'Wynabbie Gem' / Wynabbie Gem Coast Rosemary		5 Gal., L
SHRUBS & GROUNDCOVERS	41,025 sf	
Acacia redolens 'Desert Carpet' TM / Bank Catclaw		1 gal, L
Aloe vera / Medicinal Aloe		5 gal, L
Baccharis pilularis 'Pigeon Point' / Coyote Brush		1 gal, L
Caesalpinia gilliesii / Yellow Bird of Paradise		5 gal, L
Callistemon viminalis 'Little John' / Dwarf Weeping Bottlebrush		5 gal, L
Dianella tasmanica 'Yellow Stripe' / Golden Flax Lily		5 gal, L
Festuca glauca 'Elijah Blue' / Blue Fescue		1 gal, M
Hesperaloe parviflora / Red Yucca		5 gal, L
Leptospermum scoparium / New Zealand Tea Tree		5 gal, L
Miscanthus sinensis 'Variegatus' / Variegated Eulalia Grass		5 gal, M
Muhlenbergia capillaris 'Regal Mist' TM / Muhly		5 gal, M
Muhlenbergia rigens / Deer Grass		5 gal, L
Rosmarinus officinalis 'Prostratus' / Dwarf Rosemary		1 gal, L
Salvia greggii 'Red' / Autumn Sage		5 gal, L
Teucrium chamaedrys 'Prostratum' / Prostrate Germander		1 gal, L
Teucrium fruticans 'Compactum' / Compact Bush Germander		1 gal, L
DETENTION BASIN	9,571 sf	
Calamagrostis nutkaensis / Reed Grass		1 gal, M
Carex pansa / Sanddune Sedge		1 gal, M
Carex praegracilis / Slender Sedge		1 gal, M
Cistus x hybridus / White Rockrose		5 gal, L
Juncus patens 'Elk Blue' / Spreading Rush		1 gal, L
Leymus condensatus 'Canyon Prince' / Native Blue Rye		1 gal, M
Muhlenbergia capillaris / Pink Muhly		1 gal, M
Pennisetum setaceum 'Eaton Canyon' / Eaton Canyon Fountain Grass		1 gal, M
Rhus integrifolia / Lemonade Berry		5 gal, L
Rosmarinus officinalis 'Prostratus' / Dwarf Rosemary		1 gal, L
Salvia clevelandii / Cleveland Sage		5 gal, L
Sesleria x 'Greenlee Hybrid' / Greenlee Moor Grass		1 gal, M
GROUNDCOVERS ALONG STREET FRONTAGES	3,661 sf	
Baccharis pilularis 'Pigeon Point' / Coyote Brush		1 gal, L
Carex tumulicola / Foothill Sedge		1 Gal., L
Helictotrichon sempervirens / Blue Oat Grass		1 Gal., M
Lonicera japonica 'Halliana' / Halls Honeysuckle Flowering Vine		1 Gal., L
Rosa x 'Flower Carpet Red' / Flower Carpet Red Groundcover Rose		5 Gal., M
Rosa x 'Flower Carpet White' / Flower Carpet White Groundcover Rose		5 Gal., M
Rosmarinus officinalis 'Prostratus' / Dwarf Rosemary		5 Gal., L

LOCATION MAP

PRELIMINARY WATER USE CALCULATIONS:

M.A.W.A. = (55.6) (0.62) [(0.45 x 64,681)] = 1'010,576 gal / yr.

E.T.W.U. = (55.6) (0.62) [(0.4 x 64,681) / 0.81] 1,101,078 gal / yr.

IRRIGATION SYSTEM DESIGN STATEMENT:

A PERMANENT AUTOMATIC SUB-SURFACE IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED TO IRRIGATE ALL PLANTING AREAS. THE IRRIGATION CONTROLLER(S) SHALL BE EQUIPPED FROM THE MANUFACTURER WITH WEATHER/EVAPOTRANSPIRATION (ET) SENSING CAPABILITIES TO AUTOMATICALLY ADJUST WATERING SCHEDULES AND AMOUNTS. THE DESIGN OF THE IRRIGATION SYSTEM SHALL EMPHASIZE WATER CONSERVATION AND PROVIDE EFFICIENT AND UNIFORM DISTRIBUTION OF IRRIGATION WATER. DRIP AND/OR BUBBLER IRRIGATION, OR OTHER LOW-VOLUME, LOW-PRESSURE MICRO-IRRIGATION- SYSTEM PER CITY OF CHINO HILLS DEVELOPMENT CODE 16 AND ORD. 316 AND SHALL BE INSTALLED IN PLANTER AREAS TO PROVIDE WATER DIRECTLY TO THE ROOT ZONE OF PLANTS.

PARKING AREA PROVIDED:
974SF
PARKING AREA LANDSCAPE REQUIRES AT 7%:
68 SF
PARKING AREA LANDSCAPE PROVIDED:
137 SF

TREE PERCENTAGES					
		QTY	%	Caliper	Maturation
TOTAL TREE COUNT		111 TREES			
DECIDUOUS TREES		19	17		
EVERGREEN TREES		92	83		
36" BOX TREES		30	27	2 1/2"-2 3/4"	10 years
24" BOX TREES		65	59	1 1/4"-1 3/4"	10 years
15 GAL. TREES		16	14	3/4"-1"	15 years

TREES WITHIN 6 FEET OF HARDSCAPE SHALL BE INSTALLED WITH APPROVED ROOT CONTROL BARRIER (16 FEET LENGTH TOTAL MIN. EACH TREE)

ALL GROUND-MOUNTED ELECTRICAL/MECHANICAL EQUIPMENT SHALL BE EFFECTIVELY SCREENED WITH LANDSCAPING

GO StoreIt SELF STORAGE

DATE: 3-28-22
MCG JOB #: 21627.01

DATE	REVISIONS

CONCEPTUAL LANDSCAPE PLAN

REDLANDS, CA

0 30 60 90 120 feet
1" = 30'

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NOTE: This information is conceptual in nature and is subject to adjustments pending further verification and Client, Tenant, and Governmental Agency approvals. No warranties or guaranties of any kind are given or implied by the Architect.

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SOCIO-ECONOMIC EVALUATION CHECKLIST FORM

I. BACKGROUND

1. **Project Title: Go-Stor-It Self Storage**
(Ordinance Text Amendment No. 363, Conditional Use Permit No. 1168, Street Vacation No. 186 and Lot Merger no. 003).

2. **Contact Person and Phone Number:**
Tamara Harrison, Contract Planner
Development Services Department, 35 Cajon St., Suite 20, Redlands CA 92373
Telephone: (951) 506-2061; E-mail: Tamara.Harrison@mbakerintl.com

3. **Project Location:**
Southeast corner of Naples Avenue and Wabash Avenue (Assessor's Parcel Numbers: 0298-051-07-0000).

4. **Project Sponsor's Name and Address:**
Dave Bird, on behalf of Madison Capital Group.
450 Newport Center Drive, Suite 250, Newport Beach, CA 92660

5. **General Plan Designation:** Commercial

6. **Zoning:** "Highway Commercial (C-4)"

7. **Description of Project:** The project proposes to construct a self-storage facility totaling 123,456 square feet among eleven buildings with 835 storage units and a stand-alone 700 square foot leasing office building with related site improvements on approximately 6.34-acres located at the southeast corner of Wabash Avenue and Naples Avenue. The proposal also includes the following:

   An Ordinance Text Amendment is proposed to amend Section 18.96.070 of the Redlands Municipal Code to allow self-storage facilities on parcels that are a minimum of five acres in size as a conditional use, with an approved conditional use permit.

   A Street Vacation is proposed to vacate three feet of public right-of-way along the Jasper Avenue frontage.

   A Lot Merger application is proposed to merge four existing legal parcels into one parcel for development purposes.

8. **Surrounding Land Uses and Setting:**
The project is located within a developed portion of the City with land uses in the immediate surrounding consisting of commercial, residential and vacant properties. Existing storage related uses are located adjacent to the subject site to the east and

the south.

II. COST BENEFIT FACTORS:

The cost benefit factors are evaluated independently using the cost benefit model. A positive or negative cost/benefit ratio will be derived by evaluating projects. A complete model used to evaluate the project is available in the Development Services Department. A summary of that analysis is provided here:

According to the Cost/Benefit Model used by the City, this project will provide the City approximately $30,965 in annual revenue and annual costs of $5,289, resulting in a positive balance of $25,675 (a positive Cost/Benefit Ratio of +5.85) over the period between 2022-2031.

III. PUBLIC INFRASTRUCTURE AND EFFECT ON THE CITY OF REDLANDS:

Identify the public infrastructure required for development of this project and identify the source(s) of funding for these improvements. Identify the effects of such development upon the City of Redlands.

List of public infrastructure required for the project:

The applicant will provide the on-site infrastructure as required by the Municipal Utilities & Engineering Department. As the project site is surrounded by existing public improvements and utility lines, the project is able to connect to existing utilities. The project site is an infill site as all surrounding sites have been developed and the subject site is surrounded by roadways on the north, east and west. Those roadways will be improved along the project's frontage as a result of the proposed project. In addition, the project proposes storm drains, sewer and water mains as well as fire related improvements on-site that will connect to existing infrastructure in the adjacent roadways.

The effect of the project upon the City of Redlands relative to public infrastructure:

The proposed project will not significantly impact existing public infrastructure systems. The proposed improvements will connect to existing infrastructure surrounding the project site (public streets, domestic water, sewer, storm drain, etc.). The project will construct public sidewalks adjacent to the project site. Any other impacts would be offset by the payment of applicable permit and inspection fees and development impact fees (sewer, water, and transportation impact fees), etc.

The effect of the project upon the City of Redlands relative to public infrastructure:

Proposed Project: This project will not significantly impact existing public infrastructure systems. As the project site is located- in a developed area, the proposed improvements will connect to existing infrastructure surrounding the project site (public streets, domestic water, sewer, storm drain, etc.). The project will also improve the project frontages along Naples Avenue, Wabash Avenue and Jasper Avenue. Any other impacts would be offset by the payment of applicable permit and inspection fees, development impact fees.

IV. BENEFITS OF THE PROJECT TO THE CITY OF REDLANDS

The following is a list of benefits that can be attributed to the proposed project. The benefits may fall into the categories identified or a miscellaneous category. Each benefit identified will be described in detail with supporting reasons as to how the item benefits the community.

A. Citrus Enhancements or Preservation. Does the project preserve citrus? The following are accepted ways to enhance or preserve citrus which may be determined to be a benefit to the City of Redlands.

1. Provide conservation easement(s) on citrus groves the City hopes to preserve.
2. Acquire citrus grove(s) and donate all or a portion of the grove to the City.
3. Enhance viability and productivity of existing groves by enhancing irrigation or adding frost water.
4. Maintain a viable buffer of citrus around the project (at least 3 rows).
5. Other ways to preserve citrus.

If this project provides benefit(s) that apply to citrus enhancement or preservation, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project will not affect citrus or agriculture, either directly or indirectly. The proposed project site is currently vacant and a new storage operation would be built on-site. The site is located in a heavily developed portion of the City and has a General Plan land use designation of Commercial.

B. Cultural Enhancements or Preservation. Does the project enhance or preserve cultural aspects of the community? The following are accepted ways to enhance and/or preserve cultural aspects of the community which may be determined to be a benefit to the City of Redlands.

1. Contributes to “art in public places” concept to a minimum of 1% of total

project value.

2. Contributes to the alleviation of problems at cultural sites.
3. Provides an electronic library available to the public.
4. Enhances or contributes to current services or cultural resources.
5. Contribute to performing arts venues.

If this project provides benefit(s) that apply to cultural enhancements or preservation, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project will pay the normal development impact fees that contribute towards capital improvements to enhance facilities such as the library and parks. The project will also provide additional revenue from sales tax, increased property tax assessment, business license tax, and other revenue sources that will indirectly provide funding which will contribute to enhancing and/or maintaining some of the cultural facilities within the City.

C. Heritage Enhancements or Preservation. Does the project enhance or preserve heritage aspects of the community? The following are accepted ways to enhance and/or preserve heritage aspects of the community which may be determined to be a benefit to the City of Redlands.

1. Renovates existing historic homes.
2. The project has design features which include garage doors do not face street; 50% wrap around porch on 1-1/2 sides; broad overhangs on roof; driveway located on the side of house or a circular drive; decorative wood, masonry or wrought iron fence.
3. Adaptive reuse of historic structures in appropriate zones.
4. Forming a new or annexing to an existing historic district.
5. Designation of a structure as an individual historic resource.

If this project provides benefit(s) that apply to heritage enhancements or preservation, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project site is a vacant site that is surrounded by development in all directions and does not contain any historic resources. The project does not provide for any heritage enhancements or preservation.

D. Architectural Enhancements. Does the project enhance architectural aspects of the community? The following are accepted ways to enhance architectural aspects of the community which may be determined to be a benefit to the City of Redlands.

1. Provide architectural or decorative enhancements to the

project which exceed normal architectural standards.
2. Trees or other landscaping amenities that exceed minimum requirements.
3. Contribution of off-site enhancements in the public right-of-way, such as sidewalk installation and street tree replacement.
4. Assisting in undergrounding of utility lines.

If this project provides benefit(s) that apply to architectural enhancements, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project proposes a self-storage facility that will include eleven buildings and a leasing office building. The buildings will be designed with attractive architecture which will incorporate stucco, metal, stone veneer, and glass in the design. The project will also include perimeter landscaping with enhanced perimeter landscaping along the Wabash Avenue and Jasper Avenue frontages. Additionally, screening trees and shrubs will be provided along the proposed storage buildings at the northern and southern end of the site in an effort to further screen the project from Naples Avenue to the north and the adjacent, developed site to the south.

E. Historic Downtown Enhancements or Preservation. Does the project enhance or preserve the historic downtown of the community? The following are accepted ways to enhance and/or preserve the historic downtown of the community which may be determined to be a benefit to the City of Redlands.

1. Contributes financially to viability of core downtown within expanded downtown.
2. Renovate old buildings.
3. Within an expanded downtown extends DRBA streetscape enhancements.
4. Contributing to the restoration of original building facades of existing structures
5. Re-establishing historical "pedestrian oriented" street frontages where original buildings have been removed.
6. Provides unique adaptive use of historic building.
7. Contributes to alternative means of transportation.

If this project provides benefit(s) that apply to historic downtown enhancements or preservation, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The subject property is not located within the City's Historic Downtown. However, the project will pay City established Development Impact Fees and provide additional revenue from sales tax, increased property tax assessment, business license tax, and other revenue sources that will indirectly provide funding that could be utilized to enhance and/or maintain the downtown

district.

F. Job Enhancements. Does the project enhance jobs for the community? The following are accepted ways to enhance jobs for the community which may be determined to be a benefit to the City of Redlands.

1. Provides jobs for the community.
2. Brings in revenue from outside the city.
3. Internship opportunities for students at universities, high school and colleges.

If this project provides benefit(s) that apply to job enhancements, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project will construct a self-storage facility with a 700 square foot leasing office. At most, the project is anticipated to require two employees which represents 0.01% of the City's anticipated employment growth between 2016 and 2035 as determined by the City's General Plan update. Therefore, the project does not substantially enhance jobs for the community.

G. Open Space Enhancements or Preservation. Does the project enhance or preserve open space aspects of the community? The following are accepted ways to enhance and/or preserve open space within the community which may be determined to be a benefit to the City of Redlands.

1. Hardscape feature that enhances wildlife-water/food/ shelter.
2. Enhanced landscape on commercial project which conceals infrastructure.
3. Waterscaping which increases illusion of open space.
4. Provides open space in addition to zoning requirement.
5. Provides a Planned Residential Development
6. Provides a usable conservation easement across open space in perpetuity.
7. Preserves access for wildlife migration corridor.
8. Provides undisturbed refuge area for wildlife.

If this project provides benefit(s) that apply to open space enhancements or preservation, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project will not detrimentally impact any open space features or amenities of the City of Redlands, nor affect wildlife.

H. Park Enhancements or Preservation. Does the project enhance or preserve parks of

the community? The following are accepted ways to enhance and/or preserve parks within the community which may be determined to be a benefit to the City of Redlands.

1. Adds improved parkland.
2. Adds parkland beyond requirements.
3. Provides pedestrian and/or bike trails to parks or provides extension of existing pedestrian and/or bike trails from the project site.
4. Adds meeting rooms accessible to local groups on a frequent basis.
5. Improves or adds to existing landscape and/or streetscape at or near the project site.

If this project provides benefit(s) that apply to park enhancements or preservation, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project proposes a self-storage facility with a leasing office. This type of development and location does not enable opportunities for the project to provide park enhancement or preservation. However, the applicant will pay the required Development Impact Fees which will benefit the City's Park and Recreation Program. Additionally, the project will provide additional revenue to the City from sales tax, increased property tax assessment, business license tax, and other revenue sources that will indirectly provide funding that may be used to benefit City parks

I. Public Safety Enhancements. Does the project enhance public safety aspects of the community? The following are accepted ways to enhance public safety within the community which may be determined to be a benefit to the City of Redlands.

1. Security infrastructure is provided in an architecturally acceptable manner.
2. Exterior television monitoring on commercial project.
3. Provide a building site or fully equipped fire station or contributes to dedicated City account for future construction.
4. Provides significant additional fire equipment as determined by the Fire Department.
5. Provides for a police substation (subject to City approval).
6. Provides for a building site for a new facility.

If this project provides benefit(s) that apply to public safety enhancements, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The proposed project can be readily served by existing public safety personnel, equipment, and facilities. The City will require the developer to pay any applicable Development Impact Fees which have been established by the City to fund public facilities, including police and public safety services. The project

will also provide additional revenue (from increased property tax assessments, sales tax revenues, business license revenue, utilities revenue, etc.), which will assist in funding police and public safety operations.

J. School Enhancements. Does the project enhance schools or their operations within the community? The following are accepted ways to enhance schools within the community which may be determined to be a benefit to the City of Redlands.

1. Senior citizen development adds revenue but no impact.
2. Provides day care and after school program(s).
3. Project is close to schools serving the project.
4. Contributes equipment or other enhancements to existing day care and after school programs.
5. Assist schools with land or financing (such as Mello Roos).

If this project provides benefit(s) that apply to schools, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project is not a residential development and is not considered growth inducing in nature. The project will pay School Fees based on a commercial land use prior to building permit issuance.

K. Traffic. Does the project reduce traffic, enhance systems to improve traffic conditions or otherwise improve traffic within the community? The following are accepted ways to improve traffic within the community which may be determined to be a benefit to the City of Redlands.

1. Provide financial mitigation which helps alleviate parking problems in town i.e. by contributing to the parking district.
2. Incorporate “traffic calming” elements into the design of the circulation system.
3. Support for alternative forms of public transportation or public transportation facilities.
4. Add biking and pedestrian access to off campus intellectual or entertainment resources.
5. Have a unique method of product/inventory delivery.

If this project provides benefit(s) that apply to traffic, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project will contribute toward the construction of necessary traffic improvements by improving the project’s frontage along Naples Avenue, Wabash Avenue and Jasper Avenue along with the payment of development impact fees established by the City of Redlands and paid at the time of permit issuance.The

project and its future customers will also provide additional revenue to the City (resulting from increased property tax assessment, sales tax revenues, business license revenue, utilities revenue, etc.) which will indirectly benefit the City's general fund (which contributes to roadway maintenance and improvements).

L. Wastewater System Enhancements. Does the project enhance the wastewater system within the community? The following are accepted ways to improve the wastewater system within the community which may be determined to be a benefit to the City of Redlands.

1. Provide a dual system to use potable and non-potable water.
2. Provide financial contributions to tertiary facilities at the Wastewater Treatment Plant.
3. Improve water quality.

If this project provides benefit(s) that apply to the wastewater system, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project is not anticipated to have any potentially significant impacts to wastewater or sewer utilities within the City of Redlands. The proposed project is consistent with the General Plan land use designation and the Highway Commercial (C-4) zoning and would be required to meet the requisites of the City of Redlands and the Santa Ana Regional Water Quality Control Board regarding wastewater quality. The project would not require or result in the need to construct new water or wastewater treatment facilities or expansion of existing facilities in the City of Redlands, and will not exceed wastewater treatment capacities. The developer will also pay any applicable Development Impact Fees established by the City.

M. Miscellaneous Preservation or Enhancements. Does the project enhance or preserve elements within the community?

If this project provides benefit(s) that apply to enhancement or preservation of elements that are important to the City, describe in detail the benefit(s) with supporting reasons as to how the item(s) benefits the community.

Proposed Project: The project does not provide any additional or miscellaneous enhancements or preservation of elements within the community other than those previously identified.

SOCIAL FACTORS POTENTIALLY AFFECTED:

This project may create unmitigable physical blight or overburden public services for those social factors checked below within the "Potentially Significant" or "Potentially Significant

Unless Mitigation" as indicated by the checklist on the following pages.

__ Agricultural/Citrus Removal	__ Police Services	__ Recreational Programs
__ Wildlife/Habitat	__ Downtown Impacts	__ Land Use Compatibility
__ Traffic	__ Residential Design	__ Schools
__ Fire Services	__ Cultural Facilities	
__ Paramedic Services	__ Park Facilities	

V. DETERMINATION

On the basis of this initial evaluation:

X **I find that the proposed project will not create unmitigable physical blight or overburden public services in the community, and no additional information or evaluation is needed.**

__ I find that although the proposed project could create unmitigable physical blight or overburden public services in the community, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project by the applicant.

__ I find that the proposed project may create unmitigable physical blight or overburden public services in the community, and additional information or evaluation is needed in the following areas:

__ I find that the proposed project has already been evaluated for socio-economic impacts and the prior evaluation adequately evaluated this project.

Signed: _____
Tamara Harrison,
Contract Planner

VI. EVALUATION OF SOCIAL FACTORS

Explanations of all "Potentially Significant," "Potentially Significant Unless Mitigation Incorporated," "Less Than Significant Impact," and "No Impact" answers are provided on the attached pages.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AGRICULTURAL/CITRUS REMOVAL. Would the proposal:				
a) Affect agricultural resources or operations (e.g. impacts to soils or farmlands, or impacts from incompatible land uses)?	___	___	___	✓
b) Remove active citrus groves from production?	___	___	___	✓

Agricultural/Citrus Removal – Discussion

a, b) The project site is located in the northeast portion of the City of Redlands. The project site is identified in the Farmland Mapping and Monitoring Program of the California Resources Agency as “Grazing land.” The Project Site is not identified to as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Historical aerial photographs show the property ceased agricultural uses sometime on or before 1980 and is not currently part of a larger farmland, orchard, or other agricultural purpose. Therefore, no impacts to farmland would result, and no mitigation measures are warranted.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
2. WILDLIFE/HABITAT/OPEN SPACE PRESERVATION. Would the proposal:				
a) Eliminate or have negative impact upon wildlife corridors?	___	___	___	✓
b) Tend to urbanize open space impacting preservation and conservation of natural resources?	___	___	___	✓
c) Interfere with use of recognized trails used by joggers, hikers, equestrians or bicyclists?	___	___	___	✓
d) Eliminate, reduce, or have any negative impact upon wildlife habitat areas to include the protection of fringe or buffer areas?	___	___	___	✓

Wildlife/Habitat/Open Space Preservation – Discussion

a) The project site is located in a commercial area of the City of Redlands. The project site's proximity to urbanized areas and the commercial development of the surrounding area, along with the lack of vegetation preclude the potential for wildlife corridors to occur on the project vicinity. There will be no impacts.

b) The project site is in an area designated by the General Plan for commercial use. The project site is currently vacant but is highly disturbed and contains no natural resources. The project would not urbanize open space areas that could impact preservation and conservation of natural resources. There will be no impacts.

c) The project will not interfere with the use of any recognized trails, and there are no impacts.

d) The Project Site consists of disturbed land and is largely devoid of native vegetation. Vegetation communities onsite consisted primarily of disturbed ruderal grassland. Disturbances observed on the site were mainly associated with non-native species, vehicle tracks. Of the 49 special-status wildlife species identified in the literature review and database searches, one was found to have a low potential to occur onsite: burrowing owls. Although no burrowing owls or signs of burrowing owl

inhabitation were observed on the site, standard mitigation measures are included to ensure there will be no impacts if they move onto the site prior to construction occurring. Impacts will be less than significant with the proposed mitigation.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
3. TRAFFIC. Would the proposal:				
a.) Result in increased vehicle trips or congestion?	___	___	✓	___
b.) Create additional traffic so as to be in conflict with the policies of the General Plan?	___	___	✓	___
c.) Does traffic impact livability of a residential neighborhood on streets which, due to design or terrain features, street side development or other factors, have greater than usual sensitivity to increased traffic?	___	___	✓	___
d.) Create additional traffic so as to increase the level of service on roadways that are adjacent to or in the vicinity of the project?	___	___	✓	___

Traffic – Discussion

a, b, c, d) The project involves the construction of a self-storage facility consisting of eleven buildings totaling 123,456 square feet with 835 storage units a 700 square foot leasing office and related site improvements to include the necessary driveways, sidewalks, and perimeter improvements, on the south side of Naples Avenue between Wabash Avenue and Jasper Avenue. Wabash is a north-south road with two lanes and a scramble lane, and Jasper Avenue is a two-lane road collector that also travels north and south. The Traffic Impact & VMT Assessment Letter provided during review of the application indicates that the significance threshold of 50 peak hour trips to is not exceeded, and due to the small number of trips forecast to be generated, traffic impacts are deemed less than significant. The developer will also pay any applicable development impact fees, such as sewer, water, and transportation impact fees. All impacts are anticipated to be less than significant.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
4. FIRE & PARAMEDIC SERVICES. Will the proposal result in:				
a) Requiring fire and paramedic services that are beyond the current capabilities of the Fire Department?	___	___	___	✓
b) An increase in response time for essential fire or paramedic services to the remainder of the community?	___	___	___	✓
c) The need for additional fire or paramedic facilities or equipment?	___	___	___	✓

Fire & Paramedic Services – Discussion

a) The project proposes the construction of a new self-storage facility. All buildings will be required to be constructed according to current California Building Code and California Fire Code standards. Existing fire and paramedic service capabilities provided by the City of Redlands are adequate to serve the project. No impacts are anticipated, and no mitigation is required.

b) The City of Redlands Fire Department provides fire and emergency medical services to the project site and vicinity. At this time, the Fire Department consists of approximately 55 total sworn personnel, including 18 firefighter/ paramedics and 37 firefighter/EMTs and covers an area of 37 square miles. At this present time, city-wide level of service is expected to be 0.76 firefighters per 1,000 residents. Fire Department services are typically financed through the General Fund. The City would be able to provide adequate Fire Department services in a timely manner. Therefore, the project is not expected to have any potentially significant impacts in terms of response times. No impacts are anticipated, and no mitigation is required.

c) Present capabilities of the Fire Department will not be impacted with development of the project. There will be no need for additional fire or paramedic facilities or equipment. Future revenue from the project (e.g., increased property tax assessment, sales tax revenue, etc.) will assist in funding fire facilities, equipment, and operations for the City. No impacts are anticipated, and no mitigation is required.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
5. POLICE SERVICES. Would the proposal result in:				
a) Requiring police services that are beyond the current capabilities of the Police Department?				✓
b) An increase in response time for essential police services to the remainder of the community?				✓
c) The need for additional police facilities or equipment?				✓
d) Increase in crime as a result of the type of business?			✓	

Police Services – Discussion

a-c) The City of Redlands Police Department currently provides services to the project site and vicinity. The Redlands Police Department personnel is made up of approximately 100 volunteers, 80 sworn officers and 58 full and part-time civilians, resulting in a service level of 1.12 officers per 1,000 residents. The Police Department contains an Operations Division and an Investigations and Support Services Division. In addition to sworn patrol officers, the Department has several sub-units, including Investigations, the Multiple Enforcement Team, Narcotics, and volunteers. The project is not expected to have any potentially significant impacts in terms of response times. There will be no need for additional police facilities or equipment. Police services are typically financed through the General Fund. Future revenue from the project (e.g., increased property tax assessment, sales tax revenue, etc.) will assist in funding police facilities, equipment, and operations for the City. No impacts are anticipated, and no mitigation is required.

d) The project is not expected to result in any significant increase in crime. The proposed storage facility would be used at a low intensity by the local community, with a corresponding low rate of calls that can be expected for police service. Therefore, any impacts are considered to be less than significant.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
6. DOWNTOWN IMPACTS. Would the proposal result in:				
a) A reduction of the number or types of businesses located in the downtown?	___	___	___	✓
b) An unfair or unreasonable competitive disadvantage to existing businesses downtown?	___	___	___	✓
c) Creation of vacant buildings and the potential for blight?	___	___	___	✓
d) Cause an unreasonable increase in traffic downtown?	___	___	___	✓
e) Economic and social effects of businesses competing with downtown businesses?	___	___	___	✓

Downtown Impacts – Discussion

a-e) The project involves the construction of a self-storage facility approximately two miles from the downtown area. In addition, as a self-storage facility, there is no impact to the existing businesses in the downtown area. The project would not conflict with an applicable congestion management program, including but not limited to Level of Service (LOS) standards and travel demand measures within the City of Redlands, or other standards established by the county congestion management agency for designated roads or highways. In terms of the General Plan, the proposed project would not create any traffic or transportation system issues not already accounted for in the General Plan EIR. There will be no conflicts with the General Plan land use map or any policies, and no impacts are anticipated.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
7. RESIDENTIAL DESIGN. Would the proposal:				
a) Conflict with existing codes and or standards?	___	___	___	✓
b) Meet minimum point standards of the Residential Development Allocation process?	___	___	___	✓

Residential Design – Discussion

a) Not applicable. The proposal for the construction of a self-storage facility is not subject to the City's design requirements for residential projects and is not subject to the Residential Development Allocation process outlined in the Redlands Municipal Code.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
8. CULTURAL FACILITIES. Would the proposal result in:				
a) Impacts to an historic residential structure, neighborhood, or district?	___	___	___	✓
b) Impacts to an historic commercial structure or district?	___	___	___	✓
c) Impacts to cultural facilities such as the Smiley Library, Redlands Bowl, Lincoln Shrine, Joslyn Center, Community Center, etc.?	___	___	___	✓
d) Have the potential to cause a physical change which would affect unique ethnic cultural values?	___	___	___	✓
e) Potential to disturb existing religious facilities.	___	___	___	✓
f) Impact or restrict religious or sacred uses.	___	___	___	✓

Cultural Facilities – Discussion

a-d) The project site does not contain any historic residential structures and is not located in any historic neighborhoods or districts, so there are no known impacts to such resources. Furthermore, the project will not have any adverse impact to local cultural facilities or values as there are no applicable facilities or values associated with the site. There will be no impacts.

e, f) No part of this project has the potential to disturb existing religious facilities nor impact or restrict any religious uses. No impacts are anticipated.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
9. PARK FACILITIES & RECREATIONAL PROGRAMS. Will the proposal result in:				
a) Increases in use or demand for park facilities or programs to include manpower, facilities or equipment?	___	___	___	✓

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b) A ratio of parkland to population which exceeds standards and or goals established by the General Plan?	___	___	___	✓

Park Facilities & Recreational Programs – Discussion

a, b) No Impacts. The proposed project will involve the construction of a self-storage facility. Therefore, the project is not anticipated to adversely affect existing or planned recreational facilities, nor create a significant new demand for additional recreational facilities. The project would also generate additional revenue to the City with increased property tax assessment and sales taxes, which will assist in funding park facilities and services. No detrimental impacts are anticipated.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
10. LAND USE COMPATIBILITY. Would the proposal result in:				
a) Land uses that are not compatible or consistent with the General Plan?	___	___	___	✓
b) Economic impacts on businesses and small property owners from a project	___	___	___	✓
c) Physical separation or division of an existing community	___	___	___	✓
d) Loss of jobs for the community?	___	___	___	✓
e) Overcrowding of housing?	___	___	___	✓

Land Use Compatibility – Discussion

a) No detrimental impacts are anticipated in terms of the General Plan. The land use designation is 'Commercial' for the subject property and vicinity, and upon adoption, the project will comply with all applicable policies of the General Plan.

b) The project will not result in any detrimental impacts to businesses or small property owners. The project will develop a vacant lot and provide self-storage space for use by the local community. No detrimental economic impacts on businesses or small property owners are anticipated.

c) The project site is designed to be compatible with the surrounding residential and commercial developments. This project will in no way physically divides or separates the existing community. No impacts are anticipated.

d) The project will ultimately create several full-time and part-time jobs. The construction of the project will also create jobs, and not result in the loss of jobs to the community. No detrimental impacts are anticipated.

e) No part of this project has the potential to result in overcrowding of the current housing stock within the City. No impacts are anticipated.

Issues and Supporting Information Sources:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
11. SCHOOLS. Would the proposal result in:				
a) Creating an overcapacity in schools?	___	___	___	✓
b) The need for additional school facilities or equipment?	___	___	___	✓
c) Land uses not consistent with or compatible with existing educational facilities in community?	___	___	___	✓
d) Social or academic impacts on students resulting from school closures.	___	___	___	✓

Schools – Discussion

a-d) The project does not have the potential to adversely impact schools. School services within the City of Redlands are provided by the Redlands Unified School District. The project will involve the construction of a new self-storage facility. It is anticipated that patrons of the business will be members of the local community and no impacts to schools would result in the above categories.

TABLE 1
CITY OF REDLANDS : MODEL
LAND USE SUMMARY:
FISCAL IMPACT ANALYSIS

LAND USE	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	YEAR 4 2025	YEAR 5 2026	YEAR 6 2027	YEAR 7 2028	YEAR 8 2029	YEAR 9 2030	YEAR 10 2031	TOTAL	
RESIDENTIAL UNITS												
RURAL LIVING (0.2 - 0.4 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
VERY-LOW-DENSITY RESIDENTIAL (0 - 2.7 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
LOW-DENSITY RESIDENTIAL (0 - 6.0 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
LOW-MEDIUM-DENSITY RESIDENTIAL (0 - 8.0 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
MEDIUM-DENSITY RESIDENTIAL (0 - 15.0 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
HIGH DENSITY (0 - 27.0 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
TOTAL, RESIDENTIAL UNITS	0	0	0	0	0	0	0	0	0	0	0	
CUMULATIVE, RESIDENTIAL UNITS	0	0	0	0	0	0	0	0	0	0	NA	
PROJECT RESIDENTS /1												
RURAL LIVING (0.4 - 0.2 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
VERY-LOW-DENSITY RESIDENTIAL (0 - 2.7 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
LOW-DENSITY RESIDENTIAL (0 - 6.0 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
LOW-MEDIUM-DENSITY RESIDENTIAL (0 - 8.0 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
MEDIUM-DENSITY RESIDENTIAL (0 - 15.0 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
HIGH DENSITY (0 - 27 du/acre)	0	0	0	0	0	0	0	0	0	0	0	
TOTAL, PROJECT RESIDENTS	0	0	0	0	0	0	0	0	0	0	0	
CUMULATIVE, PROJECT RESIDENTS	0	0	0	0	0	0	0	0	0	0	NA	
CUMULATIVE PROJECT ACREAGE /2												
RURAL LIVING (0.4 - 0.2 du/acre)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	
VERY-LOW-DENSITY RESIDENTIAL (0 - 2.7 du/acre)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	
LOW-DENSITY RESIDENTIAL (0 - 6.0 du/acre)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	
LOW-MEDIUM-DENSITY RESIDENTIAL (0 - 8.0 du/acre)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	
MEDIUM-DENSITY RESIDENTIAL (0 - 15.0 du/acre)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	
HIGH DENSITY (0 - 27 du/acre)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	
CUMULATIVE, PROJECT ACREAGE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	
LAND NON-RESIDENTIAL ACRES, ANNUAL /3												
RETAIL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
INDUSTRIAL	6.3	0	0	0	0	0	0	0	0	0	6.3	DEVELOPER
OTHER NON-RESIDENTIAL	0.0	0	0	0	0	0	0	0	0	0	0.0	
ANNUAL TOTAL, NON-RESIDENTIAL	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	
LAND NON-RESIDENTIAL ACRES, CUMULATIVE												
RETAIL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	
INDUSTRIAL	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	NA	
OTHER NON-RESIDENTIAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	
CUMULATIVE TOTAL, NON-RESIDENTIAL	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	NA	
LAND NON-RESIDENTIAL EDU'S, CUMULATIVE /4												
RETAIL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	
INDUSTRIAL	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	NA	
OTHER NON-RESIDENTIAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NA	
CUMULATIVE TOTAL, NON-RESIDENTIAL EDU'S	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	NA	
BUILDING NON-RESIDENTIAL SQ.FT., ANNUAL												
RETAIL	0	0	0	0	0	0	0	0	0	0	0	
INDUSTRIAL	122,756	0	0	0	0	0	0	0		0	122,756	
OTHER NON-RESIDENTIAL	700	0	0	0	0	0	0	0	0	0	700	DEVELOPER
ANNUAL TOTAL, NON-RESIDENTIAL	123,456	0	0	0	0	0	0	0	0	0	123,456	
BUILDING NON-RESIDENTIAL SQ.FT., CUMULATIVE												
RETAIL	0	0	0	0	0	0	0	0	0	0	NA	
INDUSTRIAL	122,756	122,756	122,756	122,756	122,756	122,756	122,756	122,756	122,756	122,756	NA	
OTHER NON-RESIDENTIAL	700	700	700	700	700	700	700	700	700	700	NA	
CUMULATIVE TOTAL, NON-RESIDENTIAL	123,456	123,456	123,456	123,456	123,456	123,456	123,456	123,456	123,456	123,456	NA	

SHADED CELLS ARE VARIABLE ASSUMPTIONS OR INPUTS UNIQUE TO THE PROJECT.

NOTES:

1. Average number of residents per Dwelling Unit ("DU") provided by the California Department of Finance.
   Residents per DU = 2.801 OTHER

2. Assumes residential acreage per unit of the following:

Rural Living (less than 0.2 - 0.4 du/acre)	NA
Very-Low-Density Residential (0 - 2.7 du/acre)	NA
Low-Density Residential (0 - 6.0 du/acre)	NA
Low-Medium-Density Residential (0 - 8.0 du/acre)	NA
Medium-Density Residential (0 - 15.0 du/acre)	NA
High Density (0 - 27.0 du/acre)	NA

3. Assumes average non-residential site coverage of the following (based on the General Plan):

Retail	0.0%	
Industrial	44.7%	
Other Non-Residential	0.0%	Lot Coverage

4. Assumes non-residential equivalent dwelling units of the following:
   EDUs per acre = 6.0 OTHER

GENERAL PLAN BUILDOUT	PROJ. Sq. Ft.*	F.A.R.*	Projected Acreage	
RETAIL	8,646,200	0.30	661.63	
INDUSTRIAL	10,048,400	0.40	576.70	OTHER
OTHER NON-RESIDENTIAL	21,641,990	0.45	1,104.07	
	40,336,590		2,342.40	

*As disclosed in the General Plan

Typical Home Size: 2,835 OTHER
Estimated Equivalency: 6.07

TABLE 2
CITY OF REDLANDS : MODEL
LAND USE SUMMARY:
FISCAL IMPACT ANALYSIS

ASSESSED VALUATION ASSUMPTIONS		
RESIDENTIAL		
RURAL LIVING ASSESSED VALUE	$0	
VERY-LOW-DENSITY ASSESSED VALUE	$0	
LOW-DENSITY ASSESSED VALUE	$0	
LOW-MEDIUM-DENSITY ASSESSED VALUE	$0	
MEDIUM-DENSITY ASSESSED VALUE	$0	
HIGH DENSITY ASSESSED VALUE	$0	
NON-RESIDENTIAL		
RETAIL ASSESSED VALUE	$0.00	
INDUSTRIAL ASSESSED VALUE	$104.50	DEVELOPER
OTHER NON-RESIDENTIAL ASSESSED VALUE	$0.00	

SECURED PROPERTY TAX ASSUMPTIONS

NET APPORTIONMENT FACTORS AS A FRACTION OF 1.0% TAX RATE

PROPERTY TAXES PASSED THROUGH TO CITY /1 — 20.00% — CITY

1. Based on amount disclosed in the adopted 1998-99 budget.

UNSECURED PROPERTY TAX ASSUMPTIONS

RESIDENTIAL:
UNSECURED TAXES AS A % OF SECURED — 2.75% — CITY
NON-RESIDENTIAL:
UNSECURED TAXES AS A % OF SECURED — 10.00%

FISCAL YEAR ($s x1,000) end of:	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	YEAR 4 2025	YEAR 5 2026	YEAR 6 2027	YEAR 7 2028	YEAR 8 2029	YEAR 9 2030	YEAR 10 2031
SECURED ASSESSED VALUE CALCULATION:										
ANNUAL ASSESSED VALUES (YEARLY INCREASE)										
RESIDENTIAL										
RURAL LIVING	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
VERY-LOW-DENSITY RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
LOW-DENSITY RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
LOW-MEDIUM-DENSITY RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
MEDIUM-DENSITY RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
HIGH DENSITY RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL										
RETAIL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
INDUSTRIAL	$12,828	$0	$0	$0	$0	$0	$0	$0	$0	$0
OTHER NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL NON-RESIDENTIAL	$12,828	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL YEARLY VALUATION INCREASE:	$12,828	$0	$0	$0	$0	$0	$0	$0	$0	$0
CUMULATIVE ASSESSED VALUES										
RESIDENTIAL										
RURAL LIVING	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
VERY-LOW-DENSITY RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
LOW-DENSITY RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
LOW-MEDIUM-DENSITY RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
MEDIUM-DENSITY RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
HIGH DENSITY RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL										
RETAIL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
INDUSTRIAL	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828
OTHER NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL NON-RESIDENTIAL	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828
TOTAL CUMULATIVE ASSESSED VALUE	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828	$12,828
SECURED PROPERTY TAX REVENUE CALCULATION:										
CITY OF REDLANDS										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$26	$26	$26	$26	$26	$26	$26	$26	$26	$26
TOTAL SECURED TAX REVENUES TO CITY	$26	$26	$26	$26	$26	$26	$26	$26	$26	$26
UNSECURED PROPERTY TAX REVENUE CALCULATION:										
CITY OF REDLANDS										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$3	$3	$3	$3	$3	$3	$3	$3	$3	$3
TOTAL UNSECURED TAX REVENUES TO CITY	$3	$3	$3	$3	$3	$3	$3	$3	$3	$3
TOTAL PROPERTY TAXES TO CITY	$28	$28	$28	$28	$28	$28	$28	$28	$28	$28

TABLE 3
CITY OF REDLANDS : MODEL
LAND USE SUMMARY:
FISCAL IMPACT ANALYSIS

RESIDENTIAL INDIRECT SALES TAX GENERATION ASSUMPTIONS		
AVERAGE HOUSEHOLD INCOME ASSUMPTIONS:		
WEIGHTED AVERAGE RESIDENTIAL PRICE	$0	
AVERAGE RESIDENTIAL MORTGAGE (20% DOWN)	$0	
ANNUAL MORTGAGE PAYMENTS @ 6.50% & 30 YEARS	$0	CITY
AVG. HOUSEHOLD INCOME (3:1 INCOME/PAYMENT RATIO):	$0	
RETAIL TAXABLE EXPENDITURE (% OF INCOME):	25.0%	
PROJECT RESIDENTS' PURCHASES OUTSIDE PROJECT AND WITHIN INCORPORATED CITY:	50.0%	

BUSINESS DIRECT SALES & USE TAX GENERATION ASSUMPTIONS		
SALES TAXES PASSED THROUGH TO CITY, APPLIED TO COSTS: /1	1.00%	CITY
MEASURE 'I' TAXES PASSED THROUGH TO TRANSIT AUTHORITY	0.00%	
LOCAL TRANSPORTATION SALES TAXES	0.00%	
DISPLACED EXISTING CITY SALES TAX	33.33%	
PROJECT RETAIL TAXABLE SALES PER SQ. FT:		
RETAIL	$0.00	
INDUSTRIAL	$0.00	
OTHER NON-RESIDENTIAL	$0.00	DEVELOPER

PROPERTY TRANSFER TAX ASSUMPTIONS		
RESIDENTIAL PROPERTY TURNOVER RATE	10.00%	CITY
BUS & COM PROPERTY TURNOVER RATE	5.00%	
TRANSFER TAX AS A % OF RESALE DOLLAR	0.11%	
PROPERTY TRANSFER TAX PASSED THROUGH TO CITY	50.00%	

1. Based on amount passed through to city in the adopted 1997-98 budget.

FISCAL YEAR ($s x1,000) end of:	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	YEAR 4 2025	YEAR 5 2026	YEAR 6 2027	YEAR 7 2028	YEAR 8 2029	YEAR 9 2030	YEAR 10 2031
SALES & USE TAX REVENUE CALCULATION (CUMULATIVE):										
INDIRECT SALES TAX GENERATION										
RESIDENTIAL TAXABLE EXPENDITURES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL TAXABLE PURCHASES WITHIN CITY	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
RESIDENTIAL SALES TAX GENERATION	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
DIRECT SALES TAX GENERATION										
RETAIL TAXABLE SALES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
INDUSTRIAL TAXABLE SALES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
OTHER NON-RESIDENTIAL TAXABLE SALES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
SUB-TOTAL DIRECT TAXABLE SALES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
LESS: DISPLACED EXISTING CITY SALES TAX	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL DIRECT TAXABLE SALES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL DIRECT SALES TAX GENERATION	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL PROJECT SALES & USE TAX REVENUES, APPLIED TO COSTS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
RESIDENTIAL MEASURE 'I' SALES TAXES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL MEASURE 'I' SALES TAXES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
RESIDENTIAL LOCAL TRANSPORTATION SALES TAXES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL LOCAL TRANSPORTATION SALES TAXES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL PROJECT SALES & USE TAX REVENUES, FOR TRANSPORTATION	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
PROPERTY TRANSFER TAX CALCULATION (CUMULATIVE):										
RESIDENTIAL PROPERTY TRANSFER TAXES	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
NON-RESIDENTIAL PROPERTY TRANSFER T AXES	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35	$0.35
TOTAL ANNUAL PROPERTY TRANSFER TAXES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

SHADED CELLS ARE VARIABLE ASSUMPTIONS OR INPUTS UNIQUE TO THE PROJECT.

TABLE 4
CITY OF REDLANDS : MODEL
LAND USE SUMMARY:
FISCAL IMPACT ANALYSIS

BUSINESS LICENSE FEE REVENUE	
RESIDENTIAL	NA
NON-RESIDENTIAL	
BUSINESS LICENSE FEES ARE CHARGED AT A RATE EQUAL TO $12 FOR THE FIRST $5,000 IN GROSS SALES, PLUS $3 FOR EACH ADDITIONAL $5,000 INCREMENT IN GROSS SALES.	

FRANCHISE FEES (PER CAPITA)	RESIDENTIAL	NON-RESIDENTIAL
TOTAL FRANCHISE	$16.71	$16.71

TRANSIENT OCCUPANCY TAX
NUMBER OF AVAILABLE HOTEL ROOMS
OCCUPANCY RATE
AVERAGE BILLING RATE PER ROOM
% PASSED THROUGH TO CITY
AVERAGE YEARLY OCCUPANCY REVENUES TO CITY

FISCAL YEAR ($s x1,000) end of:	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	YEAR 4 2025	YEAR 5 2026	YEAR 6 2027	YEAR 7 2028	YEAR 8 2029	YEAR 9 2030	YEAR 10 2031
BUSINESS LICENSE FEE REVENUE										
RESIDENTIAL										
RURAL LIVING	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
VERY-LOW-DENSITY RESIDENTIAL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW-DENSITY RESIDENTIAL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
LOW-MEDIUM-DENSITY RESIDENTIAL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MEDIUM-DENSITY RESIDENTIAL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HIGH DENSITY RESIDENTIAL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL RESIDENTIAL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NON-RESIDENTIAL										
RETAIL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
INDUSTRIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
OTHER NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL, BUSINESS LICENSE FEE REVENUE	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
FRANCHISE FEE REVENUE										
RESIDENTIAL FRANCHISE FEES	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
NON-RESIDENTIAL FRANCHISE FEES	$0.636	$0.636	$0.636	$0.636	$0.636	$0.636	$0.636	$0.636	$0.636	$0.636
TOTAL, FRANCHISE FEE REVENUE	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1
TRANSIENT OCCUPANCY TAX REVENUE										
TOTAL, TRANSIENT OCCUPANCY TAX REVENUE	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

SHADED CELLS ARE VARIABLE ASSUMPTIONS OR INPUTS UNIQUE TO THE PROJECT.

TABLE 5
CITY OF REDLANDS : MODEL
OTHER REVENUE AND REVENUE SUMMARY
FISCAL IMPACT ANALYSIS

OTHER GENERAL REVENUES (PER CAPITA METHOD) /1	
OTHER TAXES /2	$10.86
OTHER REVENUES	$6.96
COMMUNITY DEVELOPMENT	NA
LIBRARY	NA
POLICE DEPARTMENT	NA
POLICE - ANIMAL CONTROL	NA
POLICE - RECREATION	NA
POLICE - SENIOR SERVICES	NA
FIRE	NA
PUBLIC WORKS	NA
SUBTOTAL, OTHER REVENUES PER CAPITA:	$17.83

INCOME FROM INVESTMENTS		
EFFECTIVE INTEREST	2.50%	OTHER

1. See Appendix for calculation of per capita multipliers. For items without values, a net cost technique is being employed.
2. Other Taxes includes Public Safety Sales Tax.

FISCAL YEAR ($s x1,000) end of:	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	YEAR 4 2025	YEAR 5 2026	YEAR 6 2027	YEAR 7 2028	YEAR 8 2029	YEAR 9 2030	YEAR 10 2031
PER CAPITA REVENUES										
OTHER TAXES										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL, OTHER TAXES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
OTHER REVENUES										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1
TOTAL, OTHER LICENSES, PERMITS & FINES	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1
COMMUNITY DEVELOPMENT										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL, STATE REVENUES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
LIBRARY										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL, FEDERAL REVENUES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
POLICE DEPARTMENT										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL, CITY ATTORNEY	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
POLICE - ANIMAL CONTROL										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL, ENGINEERING SERVICES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
POLICE - RECREATION										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL, FIRE DEPARTMENT	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
POLICE - SENIOR SERVICES										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL, JOSLYN CENTER	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
FIRE										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL, LIBRARY	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
PUBLIC WORKS										
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL, PARKS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL RESIDENTIAL PER CAPITA REVENUES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL NON-RESIDENTIAL PER CAPITA REVENUES	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1
TOTAL PER CAPITA REVENUES	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1
TOTAL RESIDENTIAL CASE STUDY REVENUES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL NON-RESIDENTIAL CASE STUDY REVENUES	$29	$29	$29	$29	$29	$29	$29	$29	$29	$29
TOTAL CASE STUDY REVENUES	$29	$29	$29	$29	$29	$29	$29	$29	$29	$29
RESIDENTIAL REV AVAILABLE FOR INV. INCOME	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL REV AVAILABLE FOR INV. INCOME	$30	$30	$30	$30	$30	$30	$30	$30	$30	$30
TOTAL REVENUES AVAILABLE FOR INVESTMENT INCOME	$30	$30	$30	$30	$30	$30	$30	$30	$30	$30
RESIDENTIAL INVESTMENT INCOME	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
NON-RESIDENTIAL INVESTMENT INCOME	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1
TOTAL INVESTMENT INCOME	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1

SHADED CELLS ARE VARIABLE ASSUMPTIONS OR INPUTS UNIQUE TO THE PROJECT.

TABLE 6
CITY OF REDLANDS : MODEL
POLICE DEPARTMENT, FIRE DEPARTMENT, PUBLIC WORKS & PER CAPITA COSTS
FISCAL IMPACT ANALYSIS

POLICE DEPARTMENT COSTS		
RESIDENTIAL CALLS	16,562	CITY
COST PER DWELLING UNIT	$295	
NON-RESIDENTIAL RETAIL CALLS	8,987	
COST PER BUILDING SQUARE FOOT	$0.47	
NON-RESIDENTIAL INDUSTRIAL CALLS	344	
COST PER BUILDING SQUARE FOOT	$0.02	
OTHER NON-RESIDENTIAL CALLS	7,948	
COST PER BUILDING SQUARE FOOT	$0.42	
MISCELLANEOUS CALLS /2	17,628	
TOTAL CALLS	51,469	

1. Based on Net Cost and number of calls to residential or non-residential properties.
2. Based on conversations with the Police Chief, these incidences are not related to residences or businesses in the City.

EXISTING DWELLING UNITS	25,984	CITY
EXISTING NON-RESIDENTIAL SQUARE FOOTAGE	8,824,690	

RESIDENTIAL FIRE DEPARTMENT COSTS [1]		
RESIDENTIAL CALLS	3,579	CITY
COST PER DWELLING UNIT	$168	
NON-RESIDENTIAL RETAIL CALLS	446	
COST PER BUILDING SQUARE FOOT	$0.06	
NON-RESIDENTIAL INDUSTRIAL CALLS	155	
COST PER BUILDING SQUARE FOOT	$0.02	
OTHER NON-RESIDENTIAL CALLS	1,459	
COST PER BUILDING SQUARE FOOT	$0.20	
MISCELLANEOUS CALLS /2	1,988	
TOTAL CALLS	7,627	

1. Based on Net Cost and number of calls to residential or non-residential properties.
2. Based on information from Fire Chief, these incidences are not related to residences or businesses in the City.

PUBLIC INFRASTRUCTURE REQUIREMENTS /1		
ROADS (LANE MILES)	0.0	DEVELOPER
TRAFFIC INTERSECTIONS REQUIRING SIGNALS	0.0	
AGGREGATE LANDSCAPING (ACRES)	0.0	
PARK ACREAGE (GROSS)	0.0	
STREET LIGHTS	0.0	
OPEN SPACE (ACRES)	0.0	
TRAILS (LINEAL MILE)	0.0	
STORM DRAINS (MILES)	0.0	

1. Infrastructure should exclude privately maintained facilities.

PUBLIC WORKS MAINTENANCE COSTS		
PAVEMENT MAINTENANCE PER LANE MILE /1	$5,000	CITY
STREET SWEEPING PER CURB MILE - ALL STREETS /1	$9	
TRAFFIC SIGNAL OPERATIONS & MAINTENANCE PER INTERSECTION /1	$5,560	
LANDSCAPE MAINTENANCE PER ACRE /1	$12,500	
PARK MAINTENANCE PER ACRE /1	$7,000	
STREET LIGHT MAINTENANCE COST PER LIGHT /1	$125	
OPEN SPACE MAINTENANCE PER ACRE /2	$125	
TRAIL MAINTENANCE PER LINEAL MILE /2	$500	
STORM DRAIN MAINTENANCE PER MILE /2	$750	

1. Based on consultations with the City of Redlands Public Works Department.
2. Based on consultant's experience.

CITY GENERAL GOVERNMENT COSTS*	
CITY COUNCIL	$174,090
CITY CLERK	$285,939
CITY MANAGER	$314,819
FINANCE	$605,155
CITY TREASURER	$2,875,064
CITY ATTORNEY	$1,159,167
TOTAL, CITY GENERAL GOVERNMENT COSTS	$5,414,234

*Costs have been reduced to reflect department specific revenues.

CITY GENERAL GOVERNMENT COSTS CONTINUED	
TOTAL CITY OPERATING BUDGET*	##########
*Excludes Debt Service, Utilities and Capital Improvements.	
OVERHEAD AS A % OF OPERATING BUDGET	11.04%
OVERHEAD AS A % OF DIRECT COSTS	12.41%
OVERHEAD BY DEFINITION CAUSING NO COST	0.00%
OVERHEAD AS % OF DIRECT, AVERAGE	6.20%

OTHER NET COSTS (PER CAPITA METHOD) /1	
COMMUNITY DEVELOPMENT	$29.49
LIBRARY	$28.43

1. See Appendix for calculation of per capita multipliers.

FISCAL YEAR ($s x1,000) end of:	YEAR 1 2020	YEAR 2 2021	YEAR 3 2022	YEAR 4 2023	YEAR 5 2024	YEAR 6 2025	YEAR 7 2026	YEAR 8 2027	YEAR 9 2028	YEAR 10 2029
CITY DIRECT COSTS										
POLICE DEPARTMENT COSTS										
RESIDENTIAL	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
NON-RESIDENTIAL RETAIL	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
NON-RESIDENTIAL INDUSTRIAL	$2.215	$2.215	$2.215	$2.215	$2.215	$2.215	$2.215	$2.215	$2.215	$2.215
OTHER NON-RESIDENTIAL	$0.292	$0.292	$0.292	$0.292	$0.292	$0.292	$0.292	$0.292	$0.292	$0.292
TOTAL, POLICE DEPARTMENT COSTS	$2.507	$2.507	$2.507	$2.507	$2.507	$2.507	$2.507	$2.507	$2.507	$2.507
FIRE DEPARTMENT COSTS										
RESIDENTIAL	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
NON-RESIDENTIAL RETAIL	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
NON-RESIDENTIAL INDUSTRIAL	$2.633	$2.633	$2.633	$2.633	$2.633	$2.633	$2.633	$2.633	$2.633	$2.633
OTHER NON-RESIDENTIAL	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141
TOTAL, FIRE DEPARTMENT COSTS	$2.774	$2.774	$2.774	$2.774	$2.774	$2.774	$2.774	$2.774	$2.774	$2.774
PUBLIC WORKS COSTS										
PAVEMENT MAINTENANCE	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
STREET SWEEPING	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
TRAFFIC SIGNAL OPERATION	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
LANDSCAPE MAINTENANCE	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
PARK MAINTENANCE	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
STREET LIGHT MAINTENANCE	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
OPEN SPACE MAINTENANCE	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
TRAIL MAINTENANCE	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
STORM DRAIN MAINTENANCE	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
TOTAL, PUBLIC WORKS COSTS	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
COMMUNITY DEVELOPMENT										
RESIDENTIAL	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
NON-RESIDENTIAL	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
TOTAL, COMMUNITY DEVELOPMENT	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
LIBRARY										
RESIDENTIAL	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
NON-RESIDENTIAL	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
TOTAL, LIBRARY	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
CITY DIRECT COSTS										
RESIDENTIAL	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
NON-RESIDENTIAL	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141
TOTAL, CITY DIRECT COSTS	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141	$0.141
CITY GENERAL GOVERNMENT COSTS										
RESIDENTIAL	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
NON-RESIDENTIAL	$0.009	$0.009	$0.009	$0.009	$0.009	$0.009	$0.009	$0.009	$0.009	$0.009
TOTAL, CITY GENERAL GOVERNMENT COSTS	$0.009	$0.009	$0.009	$0.009	$0.009	$0.009	$0.009	$0.009	$0.009	$0.009

SHADED CELLS ARE VARIABLE ASSUMPTIONS OR INPUTS UNIQUE TO THE PROJECT.

TABLE 7
CITY OF REDLANDS : MODEL
FISCAL IMPACT ANALYSIS DETAILED SUMMARY

FISCAL YEAR ($s x1,000) end of:	YEAR 1 2020	YEAR 2 2021	YEAR 3 2022	YEAR 4 2023	YEAR 5 2024	YEAR 6 2025	YEAR 7 2026	YEAR 8 2027	YEAR 9 2028	YEAR 10 2029	% OF TOTAL
ONGOING REVENUES											
SECURED PROPERTY TAXES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$26	$26	$26	$26	$26	$26	$26	$26	$26	$26	82.85%
UNSECURED PROPERTY TAXES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$3	$3	$3	$3	$3	$3	$3	$3	$3	$3	8.29%
TRANSFER PROPERTY TAXES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	1.14%
SALES TAXES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
MEASURE 'I' SALES TAXES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
LOCAL TRANSPORTATION SALES TAXES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
TRANSIENT OCCUPANCY TAX											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
FRANCHISE FEE REVENUES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1	2.05%
BUSINESS LICENSE REVENUES											
RESIDENTIAL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
OTHER TAXES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
OTHER REVENUES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1	3.23%
COMMUNITY DEVELOPMENT											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
LIBRARY											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
POLICE DEPARTMENT											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
POLICE - ANIMAL CONTROL											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
POLICE - RECREATION											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
POLICE - SENIOR SERVICES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
FIRE											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
PUBLIC WORKS											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
INVESTMENT INCOME REVENUES											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$1	$1	$1	$1	$1	$1	$1	$1	$1	$1	2.44%
TOTAL RESIDENTIAL REVENUES	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
TOTAL NON-RESIDENTIAL REVENUES	$31	$31	$31	$31	$31	$31	$31	$31	$31	$31	100.00%
TOTAL ON-GOING REVENUES	$31	$31	$31	$31	$31	$31	$31	$31	$31	$31	
ONGOING COSTS											
POLICE DEPARTMENT COSTS											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$3	$3	$3	$3	$3	$3	$3	$3	$3	$3	47.39%
FIRE DEPARTMENT COSTS											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$3	$3	$3	$3	$3	$3	$3	$3	$3	$3	52.45%
PUBLIC WORKS DEPARTMENT COST											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
GENERAL GOVERNMENT COSTS											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.17%
COMMUNITY DEVELOPMENT COSTS											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
LIBRARY COSTS											
RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
NON-RESIDENTIAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
TOTAL RESIDENTIAL COSTS	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	0.00%
TOTAL NON-RESIDENTIAL COSTS	$5	$5	$5	$5	$5	$5	$5	$5	$5	$5	100.00%
TOTAL ON-GOING COSTS	$5	$5	$5	$5	$5	$5	$5	$5	$5	$5	
ANNUAL RESIDENTIAL ONGOING SURPLUS/(DEFICIT)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
ANNUAL NON-RESIDENTIAL ONGOING SURPLUS/(DEFICIT)	$26	$26	$26	$26	$26	$26	$26	$26	$26	$26	
TOTAL ANNUAL ONGOING SURPLUS/(DEFICIT)	$26	$26	$26	$26	$26	$26	$26	$26	$26	$26	
ANNUAL RESIDENTIAL REVENUE/COST RATIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ANNUAL NON-RESIDENTIAL REVENUE/COST RATIO	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	
TOTAL ANNUAL REVENUE/COST RATIO	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	

TABLE 8a
LAND USE SUMMARY:
FISCAL IMPACT ANALYSIS SUMMARY (Residential Only))

FISCAL YEAR ($s x1,000) end of:	YEAR 1 2020	YEAR 2 2021	YEAR 3 2022	YEAR 4 2023	YEAR 5 2024	YEAR 6 2025	YEAR 7 2026	YEAR 8 2027	YEAR 9 2028	YEAR 10 2029
ONGOING REVENUES										
TOTAL RESIDENTIAL REVENUES	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
ONGOING COSTS										
TOTAL RESIDENTIAL COSTS	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
ANNUAL RESIDENTIAL ONGOING SURPLUS/(DEFICIT)	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000
ANNUAL RESIDENTIAL REVENUE/COST RATIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TABLE 8b
LAND USE SUMMARY:
FISCAL IMPACT ANALYSIS SUMMARY (Commercial Only)

FISCAL YEAR ($s x1,000) end of:	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	YEAR 4 2025	YEAR 5 2026	YEAR 6 2027	YEAR 7 2028	YEAR 8 2029	YEAR 9 2030	YEAR 10 2031
ONGOING REVENUES										
TOTAL NON-RESIDENTIAL REVENUES	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653
ONGOING COSTS										
TOTAL NON-RESIDENTIAL COSTS	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894
ANNUAL NON-RESIDENTIAL ONGOING SURPLUS/(DEFICIT)	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759
ANNUAL NON-RESIDENTIAL REVENUE/COST RATIO	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85

TABLE 8c
CITY OF REDLANDS : MODEL
FISCAL IMPACT ANALYSIS SUMMARY (MIXED)

FISCAL YEAR ($s x1,000) end of:	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	YEAR 4 2025	YEAR 5 2026	YEAR 6 2027	YEAR 7 2028	YEAR 8 2029	YEAR 9 2030	YEAR 10 2031	% OF TOTAL
ONGOING REVENUES											
TOTAL RESIDENTIAL REVENUES	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	0.00%
TOTAL NON-RESIDENTIAL REVENUES	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	100.00%
TOTAL ON-GOING REVENUES	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	$30.9653	
ONGOING COSTS											
TOTAL RESIDENTIAL COSTS	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	0.00%
TOTAL NON-RESIDENTIAL COSTS	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	100.00%
TOTAL ON-GOING COSTS	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	$5.2894	
ANNUAL RESIDENTIAL ONGOING SURPLUS/(DEFICIT)	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	$0.0000	
ANNUAL NON-RESIDENTIAL ONGOING SURPLUS/(DEFICIT)	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	
TOTAL ANNUAL ONGOING SURPLUS/(DEFICIT)	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	$25.6759	
ANNUAL RESIDENTIAL REVENUE/COST RATIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
ANNUAL NON-RESIDENTIAL REVENUE/COST RATIO	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	
TOTAL ANNUAL REVENUE/COST RATIO	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	

TABLE 9
CITY OF REDLANDS : MODEL
SCHOOL FEE MITIGATION (SB 50)
FISCAL IMPACT ANALYSIS

RESIDENTIAL SCHOOL FEE MITIGATION

DEVELOPER FEE REVENUE PER SINGLE FAMILY DETACHED UNIT /1	$3,113
DEVELOPER FEE REVENUE PER MULTI-FAMILY ATTACHED UNIT /2	$1,431
DEVELOPER FEE REVENUE PER MOBILE HOME /3	$1,212

STUDENT GENERATION FACTORS

ELEMENTARY SCHOOL	
SFD	0.2260
MFA	0.1362
Mobile Home	0.1068
MIDDLE SCHOOL	
SFD	0.1310
MFA	0.0574
Mobile Home	0.0548
HIGH SCHOOL	
SFD	0.1690
MFA	0.0565
Mobile Home	0.0493

SCHOOL DIST

	Capacity	Acreage	SBE 50 fees
Elementary	600	10	$5,200
Middle School	1000	20	$5,500
High School	2200	50	$7,200

FISCAL YEAR ($s ×1,000) end of:	YEAR 1 2022	YEAR 2 2023	YEAR 3 2024	YEAR 4 2025	YEAR 5 2026	YEAR 6 2027	YEAR 7 2028	YEAR 8 2029	YEAR 9 2030	YEAR 10 2031	TOTAL
CITY OF REDLANDS											
ANNUAL PROJECTED RESIDENTIAL DEVELOPMENT											
SFD		0	0	0	0	0	0	0	0	0	0
MFA	0	0	0	0	0	0	0	0	0	0	0
Mobile Home	0	0	0	0	0	0	0	0	0	0	0
STUDENT PROJECTIONS											
ELEMENTARY											
SFD	0	0	0	0	0	0	0	0	0	0	0
MFA	0	0	0	0	0	0	0	0	0	0	0
Mobile Home	0	0	0	0	0	0	0	0	0	0	0
MIDDLE SCHOOL											
SFD	0	0	0	0	0	0	0	0	0	0	0
MFA	0	0	0	0	0	0	0	0	0	0	0
Mobile Home	0	0	0	0	0	0	0	0	0	0	0
HIGH SCHOOL											
SFD	0	0	0	0	0	0	0	0	0	0	0
MFA	0	0	0	0	0	0	0	0	0	0	0
Mobile Home	0	0	0	0	0	0	0	0	0	0	0
ANNUAL SCHOOL FEE MITIGATION											
ELEMENTARY											
SFD	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
MFA	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Mobile Home	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
									Total	$0	
MIDDLE SCHOOL											
SFD	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
MFA	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Mobile Home	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
									Total	$0	
HIGH SCHOOL											
SFD	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
MFA	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Mobile Home	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
									Total	$0	
TOTAL SCHOOL FEE MITIGATION											
SFD	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
MFA	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Mobile Home	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
TOTAL	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	

1. **Project Title:** GO-Store-It Self Storage (Conditional Use Permit No. 1168, Lot Merger No.0003, Ordinance Text Amendment No. 363, and Street Vacation No. 186)

2. **Lead Agency Name and Address:**
City of Redlands
Development Services Department
35 Cajon Street, Suite 20
Redlands, CA 92373

3. **Contact Person and Phone Number:**
Emily Elliott
Senior Associate, Contract Planner
(909) 798-7555

4. **Project Location:** The Project Site is located in the City of Redlands, San Bernardino County. The 6.34-acre property is located between Wabash and Jasper avenues on the south side of Naples Avenue. The Assessor's Parcel Number (APN) is 0298-051-07. The Project Site is in the eastern portion of the City of Redlands (see Figure 1 - Regional Location and Figure 2 - Project Vicinity).

5. **Project Sponsor's Name and Address:**
Madison Capital Group
450 Newport Center Drive, Suite 250
Newport Beach, CA 92660

6. **General Plan Designation:** Commercial

7. **Zoning:** C-4 (Highway Commercial)

8. **Project Description:** Madison Capital Group (Project Applicant) is requesting approval from the City of Redlands for a Conditional Use Permit, Lot Merger, Ordinance Text Amendment, and Street Vacation to develop a 6.34-acre parcel, into a self-storage facility with a 700-square-foot leasing office and 11 buildings to include 835 units (see Figure 3 – Site Plan). The Proposed Project is known as GO-Store-It.

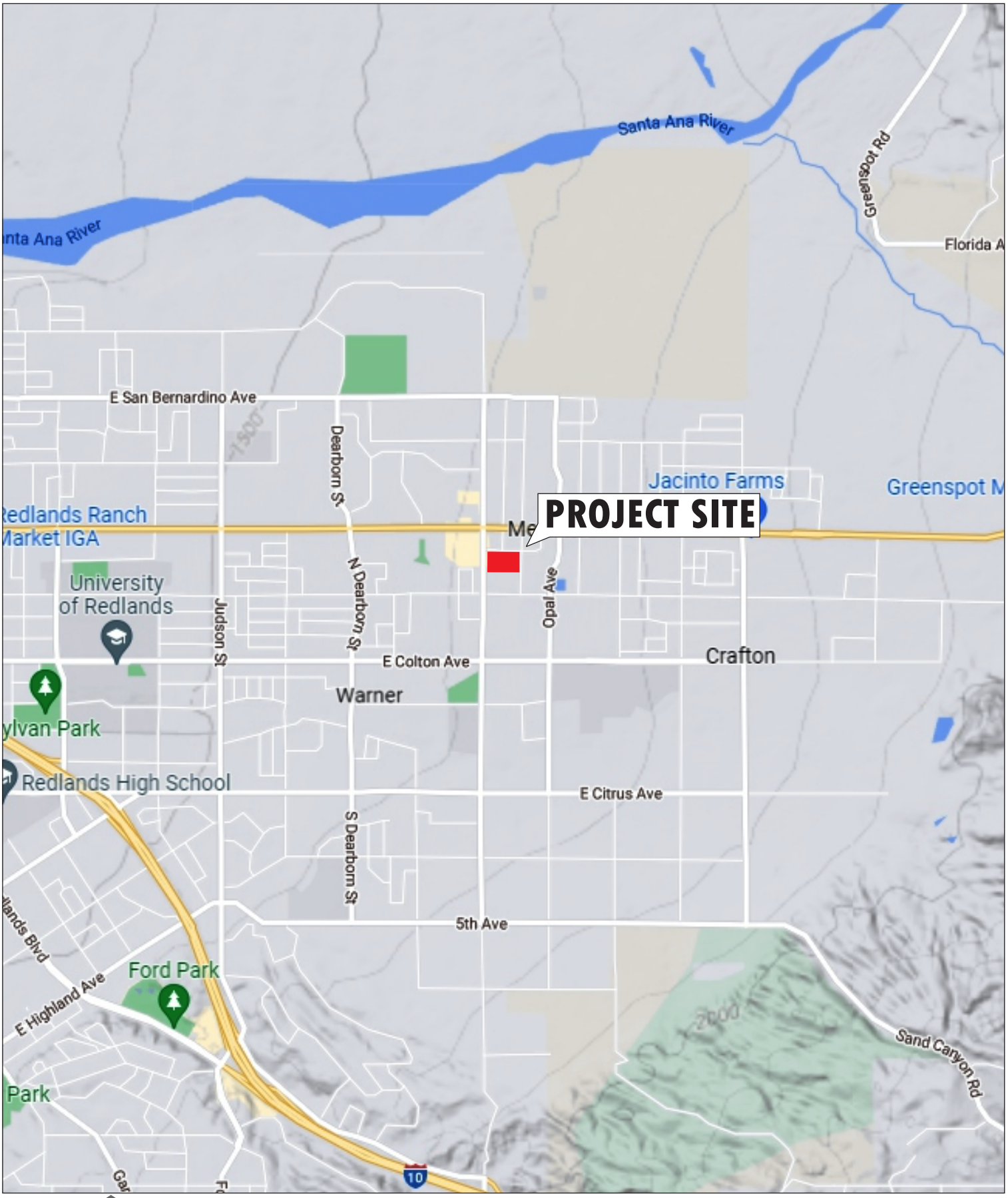
   The Project Site is generally flat, gently sloping from east to west with an elevation of approximately 1,630 feet above mean sea level (amsl) in the western portion to 1,614 feet amsl in the eastern portion. The Project Site is vacant and contains ruderal vegetation. Disturbance of the site has occurred from vehicles, discing, and trash dumping.

The Project Site is currently zoned C-4 (Highway Commercial) and designated in the City of Redlands 2035 General Plan (General Plan) for Commercial uses. The Project Application includes an Ordinance Text Amendment to add "Self-storage with a minimum of 5 acres or more" as a use that requires a Conditional Use Permit (CUP) in the C-4 District. The Proposed Project includes a Street vacation to vacate 3 feet on Jasper Avenue. The Lot Merger is required to merge the four lots comprising the Project Site into one.

Access to the Project Site would be provided by two proposed driveways; one from Jasper Avenue and one from Wabash Avenue; entries to the storage units would be gated.

9. **Surrounding Land Uses and Setting:** The Project Site is located in a developed area of the city with residential, commercial, and light industrial uses. Adjacent property uses and land use designations are shown below in the table below.

Existing Land Use and General Plan Designation			
Location	**Existing Land Use**	**General Plan Designation**	**Zoning**
Project Site	Vacant & Undeveloped	Commercial	C-4 (Highway Commercial)
North	Commercial (restaurant); Residential	Commercial; Commercial (County)	C-4 (Highway Commercial); General Commercial-Sign Control Primary (CG-SCp) (County)
South	RV Storage Facility	Light Industrial	M-1 (Light Industrial)
East	RV Storage Facility	Light Industrial; Commercial (County)	M-1 (Light Industrial); General Commercial-Sign Control Primary (CG-SCp) (County)
West	Residential and Commercial Shopping Center	Low Density Residential and Commercial	R-1 (Single-Family Residential) and C-4 (Highway Commercial)



N

0 0.5
Mile

Source: Lilburn Corp., August, 2022.

LILBURN CORPORATION

REGIONAL LOCATION

GOStoreIt Self Storage

City of Redlands, California

FIGURE 1

N

0 275

Feet

Source: Lilburn Corp., August, 2022.

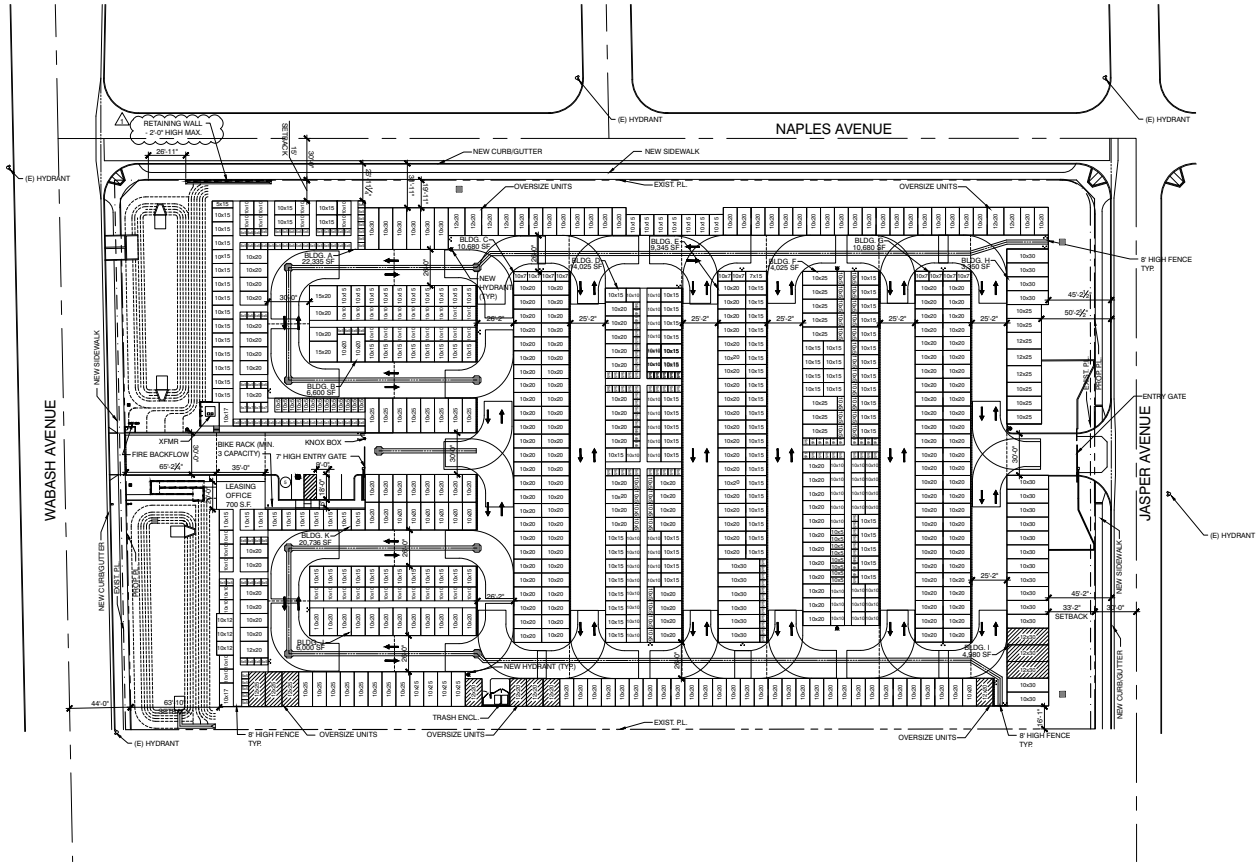
LILBURN CORPORATION

PROJECT VICINITY

GOStoreIt Self Storage

City of Redlands, California

FIGURE 2



LOCATION MAP

SITE SUMMARY

OWNER - MADISON CAPITAL GROUP
Contact: Dave Bird, Senior VP Construction and Development
450 Newport Center Drive, Suite 250
Newport Beach, CA 92660
c 909.215.4650
dbird@madsioncapgroup.com

ASSESSORS PARCEL NUMBER:	0298-051-07
ZONING	C-4 (COMMERCIAL)
TOTAL SITE AREA: NET +/- 276,228 SF ± 6.34 AC 7.54 AC GROSS	
SITE FAR:	± .45/1
BUILDING:	123,456 SF
OFFICE AREA (INCL. IN BLDG./COVERAGE AREA)	700 SF
BUILDING COVERAGE:	123,456 SF - 44.7%
PAVED AREA:	95,396 SF - 34.7%
LANDSCAPE AREA:	56,982 SF - 20.6%
PARKING PROVIDED :	5 STALLS
PARKING REQUIRED :	700 SF OFFICE/250 = 3 (4 MIN. REQ'D.)

BUILDING SF

	SF PER BUILDING
LEASING OFFICE	700 SF
BUILDING A	22,335 SF
BUILDING B	6,600 SF
BUILDING C	10,680 SF
BUILDING D	14,025 SF
BUILDING E	9,345 SF
BUILDING F	14,025 SF
BUILDING G	10,680 SF
BUILDING H	3,350 SF
BUILDING I	4,980 SF
BUILDING J	6,000 SF
BUILDING K	20,736 SF
TOTAL	123,456 SF

	RENTABLE SF	#UNITS
	114,780 SF	835
AVERAGE UNIT SIZE	137	
REGULAR PARKING	5	
TOTAL	5	

UNIT COUNT

#	SIZE		QTY	RENTABLE	TYPE
1	5	X	5	170	4,250 SF	CC
2	5	X	7	4	140 SF	CC
3	10	X	5	40	2,000 SF	CC
4	5	X	15	1	75 SF	CC
5	10	X	10	87	8,700 SF	CC
6	10	X	12	3	360 SF	CC
7	10	X	15	25	3,750 SF	CC
SUB TOTAL:			330	19,275 SF	CC
8	5	X	5	12	300 SF	DU
9	10	X	5	13	650 SF	DU
10	7	X	10	10	700 SF	DU
11	7	X	15	1	105 SF	DU
12	10	X	10	7	700 SF	DU
13	10	X	15	112	16,800 SF	DU
14	10	X	17	2	340 SF	DU
15	10	X	20	263	52,600 SF	DU
16	10	X	25	33	8,250 SF	DU
17	10	X	30	29	8,700 SF	DU
18	12	X	20	12	2,880 SF	DU
19	12	X	25	6	1,800 SF	DU
20	12	X	30	3	1,080 SF	DU
21	15	X	20	2	600 SF	DU
SUB TOTAL:			505	95,505 SF	DU
TOTAL			835	114,780 SF	CC/DU

DATE: 03-28-2022
MCG JOB #: 21627.01

DATE	REVISIONS
3.14.22	REV. PER INITIAL CITY COMMENTS
1 05.05.22	REVISED PER CITY COMMENTS

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NOTE: This information is conceptual in nature and is subject to adjustments pending further verification and Client, Tenant, and Governmental Agency approvals. No warranties or guaranties of any kind are given or implied by the Architect.

SITE PLAN
Scheme A

Scale : 1" = 40'
0 20' 40' 80'

N

GOStoreIt SELF STORAGE

REDLANDS, CA

CLEVELAND
DENVER
GLENDORA
IRVINE
ORLANDO
PHOENIX
SAN FRANCISCO

mcgarchitecture.com

SITE PLAN

GOStoreIt Self Storage
City of Redlands, California

LILBURN CORPORATION

FIGURE 3

10. Other public agencies whose approval is required:

Regional Water Quality Control Board, Santa Ana Region

11. Related Technical Reports (incorporated by reference): The technical studies/reports referenced herein and listed in the References section at the end of this Initial Study have been used to analyze the project. All reports are available for review at City of Redlands Development Services Department.

12. Evaluation Format: This Initial Study is prepared in compliance with the California Environmental Quality Act (CEQA) Guidelines. This format of the study is presented as follows. The project is evaluated based upon its effect on twenty (20) major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study Checklist provides a formatted analysis that provides a determination of the effect of the project on the factor and its elements. The effect of the project is categorized into one of the following four categories of possible determinations.

Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact

Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

1. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

2. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

3. Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as a condition of project approval to reduce these impacts to a level below significant. The required mitigation measures are: (List mitigation measures).

4. Significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are: (List the impacts requiring analysis within the EIR).

At the end of the analysis the required mitigation measures are restated and categorized as being either self- monitoring or as requiring a Mitigation Monitoring and Reporting Program.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture & Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

ENVIRONMENTAL DETERMINATION

On the basis of this Initial Study, the City of Redlands Environmental Review Committee finds:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the Proposed Project would have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the Proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Brian Foote Digitally signed by Brian Foote Date: 2022.08.15 15:44:52 -07'00'

Signature

8 / 16 / 2022

Date

Brian Foote, City Planner/Planning Manager

Printed Name

ENVIRONMENTAL CHECKLIST FORM

I. AESTHETICS – Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a) **Less Than Significant.** Scenic vistas in the General Plan Planning Area consist of the scenic corridors and views to and from the open spaces, canyonlands, hillsides, groves, and the San Bernardino Mountains.[1] The general area provides views of the San Bernardino mountains. The Project Site is located in a developed area of the city with residential, commercial, and light industrial uses. The proposed structures would range from 12 feet to 14 feet. Therefore, the Proposed Project is not anticipated to affect a scenic vista. No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

b) **No Impact**. The Project Site is heavily disturbed and contains ruderal vegetation.[2] No scenic resources are located at the Project Site. The nearest State Scenic highway is Lugonia Avenue/SR-38,[3] located approximately 500 feet north of the Project Site. The land between the Project Site and Lugonia Avenue is completely developed with residential and commercial uses. Therefore, implementation of the Proposed Project would not substantially degrade scenic resources within a state scenic highway. No impacts are identified or anticipated, and no mitigation measures are required.

c) **Less than Significant.** As stated above, the Project Site is heavily disturbed and contains ruderal vegetation. The Proposed Project proposes to develop the Project Site as a self-

[1] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017.
[2] Site Visit conducted on July 16, 2022.
[3] San Bernardino County. Policy Plan web maps. NR-3 "Scenic Routes & Highways." Accessed March 29, 2022.

storage facility. It would provide approximately 56,982 SF of landscaping (20.6% of the property). Therefore, the general aesthetics of the site would change, however, the proposed changes would be beneficial. Moreover, it is located in a developed area that consists of residential, commercial, and light industrial uses. The Project Site is currently zoned C-4 (Highway Commercial) and designated in the General Plan for Commercial uses. The Proposed Project requires an Ordinance Text Amendment but would comply with the development standards required for the C-4 zone. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

d) **Less than Significant**. The Proposed Project would not generate a significant amount of light and glare when compared to the surrounding area, which includes streetlights and existing land uses. The Project Site is surrounded on all sides by development: residential and commercial uses to the north, RV storage facility to the south, an RV storage facility to the east, and residences and commercial shopping center to the west. The design and placement of light fixtures for the Proposed Project would be reviewed for consistency with City standards and subject to City approval. City Standards require shielding, diffusing, or indirect lighting to avoid glare. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

II. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code	☐	☐	☐	☒

section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?				
d) Result in loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a) **No Impact**. The Project Site is identified as "Grazing Land."[4] Grazing Land is land which the existing vegetation is suited to the grazing of livestock. It is not identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Furthermore, the Project Site is surrounded by lands classified as Urban and Built-Up land.[5] Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

b) **No Impact.** The Project Site is currently zoned Highway Commercial (C-4). It is not zoned for agricultural uses. In addition, the Project Site is not enrolled in a Williamson Act contract.[6] Implementation of the Proposed Project would not interfere with such a contract. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

c) **No Impact.** The Project Site has a land use designation of Commercial and is currently zoned C-4. The Proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland. The Project Site does not contain forestland Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

d) **No impact.** The Project Site does not support, nor is it near any forest land. Therefore, implementation of the Proposed Project would not convert forest land to non-forest use. No impacts are identified or anticipated, and no mitigation measures are required.

e) **No Impact.** The Project Site does not support agricultural or forest land uses that would be lost as a result of the Proposed Project implementation. There are no such land uses in the vicinity. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

[4] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.2-1: Farmland Classifications.
[5] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.2-1: Farmland Classifications.
[6] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.2-1: Farmland Classifications.

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation.	Less than Significant	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

a) **Less than Significant.** The Project Site is located in the South Coast Air Basin (SCAB). The South Coast Air Quality Management District (SCAQMD) has jurisdiction over air quality issues and regulations within the SCAB. The Air Quality Management Plan (AQMP) for the SCAB establishes a program of rules and regulations administered by the SCAQMD to obtain attainment of the state and federal ambient air quality standards. The most recent AQMP (AQMP 2016) was adopted by the SCAQMD on March 3, 2017. The 2016 AQMP incorporates the latest scientific and technological information and planning assumptions, including transportation control measures developed by the Southern California Association of Governments (SCAG) from the 2016 Regional Transportation Plan/Sustainable Communities Strategy, and updated emission inventory methodologies for various source categories. Consistency with the AQMP 2016 for general development projects is determined by demonstrating compliance with local land use plans and/or employment projections.

The Proposed Project is consistent with the City of Redlands 2035 General Plan designation of Commercial and would therefore be consistent with the land uses assumed in the adopted General Plan growth forecasts which are used in development of the AQMP. The emissions associated with the Proposed Project would not result in a conflict or obstruction to the implementation of the AQMP. Therefore, project emissions are within the amounts already accounted for in the AQMP and no significant inconsistency with the

AQMP would occur. The impact would be less than significant, and no mitigation measures are required.

b) **Less than Significant.** The California Emissions Estimator Model (CalEEMod) recommended by the SCAQMD for all general development projects within the South Coast Air Basin. Therefore, the Proposed Project's construction and operational emissions were estimated using CalEEMod version 2022.1 (Appendix A). The criteria pollutants estimated for include: reactive organic gases (ROG), nitrogen oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO_2), and fugitive particulates (PM_{10} and $PM_{2.5}$). Two of the analyzed pollutants, ROG and NO_x, are ozone precursors. Both summer and winter season emission levels were estimated.

Construction Emissions

Construction emissions are considered short-term, temporary emissions and were modeled with the following construction parameters: demolition (no buildings on-site, site preparation, site grading (fine and mass grading), building construction, paving, and architectural coating. Construction is anticipated to begin in the beginning of 2023 and be completed in 2024. The resulting emissions generated by construction of the Proposed Project are shown in Table 1 and Table 2, which represent summer and winter construction emissions, respectively.

Table 1
Maximum Summer Construction Emissions
(Pounds per Day)

Source/Phase	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2023	2.1	20.1	22.4	0.0	3.9	2.3
2024	60.0	0.9	1.2	0.0	0.3	0.1
SCAQMD Threshold	75	100	550	150	150	55
Significant	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod.2022.1 Summer Emissions.
Phases do not overlap and represent the highest concentration.

Table 2
Maximum Winter Construction Emissions
(Pounds per Day)

Source/Phase	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2023	4.0	40.0	36.7	0.1	9.7	5.7
2024	1.2	11.2	13.1	0.0	1.9	0.8
SCAQMD Threshold	75	100	550	150	150	55
Significant	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod.2022.1 Winter Emissions.
Phases do not overlap and represent the highest concentration.

As shown in Table 1 and Table 2, construction emissions during either summer or winter seasonal conditions would not exceed the SCAQMD thresholds. Although the Proposed Project does not exceed SCAQMD thresholds for construction emissions, the Project

Proponent would be required to comply with all applicable SCAQMD rules and regulations as the SCAB is in non-attainment status for ozone and suspended particulates (PM_{10} and $PM_{2.5}$). The estimated emissions incorporate Rule 403 by default as required during construction.

Operational Emissions

The operational mobile emissions were calculated using CalEEMod with the vehicle trip generation estimates from the Traffic Circulation & VMT Impact Assessment, dated August 9, 2022, prepared for the Proposed Project by Linscott Law & Greenspan. It was determined that the Proposed Project would generate approximately 189 total daily trips. The Proposed Project's long-term operational emissions have been calculated and are summarized below in Table 3 and Table 4.

Table 3
Summer Operational Emissions Summary
(Pounds per Day)

Source	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile	0.9	0.9	8.7	0.0	0.7	0.1
Area	4.5	0.1	9.5	0.0	0.0	0.0
Energy	0.1	0.9	0.8	0.0	0.1	0.1
Totals	**5.4**	**1.9**	**19.0**	**0.0**	**0.8**	**0.2**
SCAQMD Threshold	55	55	550	150	150	55
Significant	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod.2022.1 Summer Emissions.
Emissions represent the daily maximum emissions.

Table 4
Winter Operational Emissions Summary
(Pounds per Day)

Source	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Mobile	0.8	1.0	7.2	0.0	0.7	0.1
Area	3.0	--	--	--	--	--
Energy	0.1	0.9	0.8	0.0	0.1	0.1
Totals	**3.8**	**1.9**	**7.9**	**0.0**	**0.8**	**0.2**
SCAQMD Threshold	55	55	550	150	150	55
Significant	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod.2022.1 Winter Emissions.
Emissions represent the daily maximum emissions.

As shown, both summer and winter season operational emissions are below SCAQMD thresholds. The Proposed Project does not exceed applicable SCAQMD regional thresholds either during construction or operational activities. The Proposed Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, no significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

c) **Less than Significant.** For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be a receptor such as a residence, hospital, convalescent facility or anywhere that it is possible for an individual to remain for 24 hours. Additionally, schools, playgrounds, childcare centers, and athletic facilities can also be considered as sensitive receptors. The use of LSTs is voluntary, to be implemented at the discretion of local public agencies acting as a lead agency pursuant to CEQA. According to SCAQMD LST methodology, LSTs would apply if the Proposed Project includes stationary sources or attracts mobile sources (such as heavy-duty trucks) that may spend long periods queuing and idling at the site; such as industrial warehouse/transfer facilities. The LSTs were developed to analyze the significance of potential air quality impacts of Proposed Projects to sensitive receptors (i.e. schools, single family residences, etc.) and provide screening tables for small projects (one, two, or five acres). Projects are evaluated based on geographic location and distance from the sensitive receptor (25, 50, 100, 200, or 500 meters from the site).

The Project Site is approximately 6.34 acres and therefore the "five-acre" LSTs were utilized for the analysis and represents a worst-case scenario as the larger the site, the larger the screening threshold. The nearest sensitive receptor is the residential development located 26 feet (~8 meters) north of the Project Site; therefore, LSTs are based on a 25-meter distance.

Table 5
Localized Significance Thresholds
(Pounds Per Day)

Source	NO_x	CO	PM_{10}		$PM_{2.5}$	
Construction Emissions (Max. from Table 1 and Table 2)	40.0	36.7	9.7		5.7	
Operational Emissions (Max. total from Table 3 and Table 4)	1.9	19.0	0.8		0.2	
Highest Value (lbs/day)	**40.0**	**36.7**	**9.7**	**0.8**	**5.7**	**0.2**
LST	270	2,075	14*	4†	9*	3†
Greater Than Threshold	**No**	**No**	**No**	**No**	**No**	**No**

Note: PM10 and PM2.5 emissions are separated into construction and operational thresholds in accordance with the SCAQMD Mass Rate LST Look-up Tables.
* Construction emissions LST
† Operational emissions LST
Source: CalEEMod.2022.1 Summer & Winter Emissions; SCAQMD Final Localized Significance Threshold Methodology; SCAQMD Mass Rate Look-up Tables for five-acre site in Source Receptor Area No. 35, distance of 25 meters.

As shown in Table 5, the Proposed Project's emissions are not anticipated to exceed the thresholds for LSTs. Therefore, the Proposed Project is not anticipated to expose sensitive receptors to substantial pollutant concentrations. No significant adverse impacts are identified or anticipated, and no additional mitigation measures are required.

d) **Less than Significant.** The Proposed Project does not contain land uses typically associated with the emission of objectionable odors. Potential odor sources associated with

the Proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities. Standard construction requirements would minimize odor impacts resulting from construction activity. It should be noted that any construction odor emissions generated would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction activity. Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City of Redlands's solid waste regulations. The Project would be also required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, no significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	☐	☐	☐	☒

a) **Less than Significant with Mitigation.** A Biological Technical report was prepared in June 2022 for the Proposed Project by ECORP Consulting, Inc. (ECORP) and is summarized herein (Appendix B for report). The survey was conducted to identify any potential biological resources that could be affected by the Proposed Project pursuant to CEQA, and to identify any biological constraints that would affect the Proposed Project.

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review using the CDFW's California Natural Diversity Database (CNDDB; CDFW 2022a) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2022) to determine the special-status plant and wildlife species that have been documented near the Project Site. ECORP searched CNDDB and CNPSEI records within the Project Site boundaries as depicted on USGS 7.5-minute Redlands topographic quadrangle, plus the surrounding eight topographic quadrangles. The CNDDB and CNPSEI contain records of reported occurrences of federally and/or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), or other special status species or habitat that may occur within or near the Project Site.

The Project Site consists of disturbed land and is largely devoid of native vegetation. Vegetation communities onsite consisted primarily of disturbed ruderal grassland. Disturbances observed on the site were mainly associated with non-native species, vehicle tracks, and scattered trash. The literature review and database searches identified 32 special-status plant species that have been documented in the vicinity of the Project Site. All 32 special-status plant species were presumed to be absent due to the lack of suitable habitat. The removal of vegetation on the Project Site will not contribute to the overall decline of any of the special-status plant species. No significant impacts to special-status plant species are anticipated to result from the development of this Project.

Of the 49 special-status wildlife species identified in the literature review and database searches, one was found to have a low potential to occur onsite: burrowing owl. Burrowing owls are a CDFW SSC and are also protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. During the field survey, no suitable burrows or burrow-like structures were observed on or adjacent to the Project Site. The site contained marginally suitable burrowing owl habitat consisting of low-growing ruderal grassland habitat and friable, sandy loam soils. The literature review and database search identified one historical record from 1983 within 5 miles of the Project Site. The Project Site did not appear to have been currently or recently used by burrowing owl at the time of the survey; however, the species is mobile and if the conditions were to change on the Project Site, such as if burrows or burrow-like structures are incidentally created or formed, burrowing owl could take up residence on the Project Site. In addition, due to the mobile nature of the

species, it is possible that burrowing owl could use the site prior to the start of project activities, especially if burrows or burrow-like structures are incidentally created or formed prior to the start of construction. If burrowing owl are found to be using or nesting on the Project Site prior to the start of construction, direct impacts may occur in the form of mortality or injury in the form of ground disturbance, entombment, and vegetation removal. Indirect impacts from construction noise, increased human and vehicular activity, dust, habitat loss, and ground vibrations may occur. To avoid potentially significant impacts to burrowing owl, Mitigation Measure BIO-1 shall be implemented.

The remaining 48 special-status wildlife species are presumed to be absent from the property and adjacent land due to the lack of suitable habitat; proximity to the surrounding residential, commercial, and industrial development; and the presence of anthropogenic disturbances associated with the commercial and industrial development surrounding the site. No significant impacts to the 48 special-status wildlife species are anticipated to result from the development of the Proposed Project. The Peruvian pepper tree observed on the Project Site as well as the trees immediately adjacent to the Project Site could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code. Furthermore, the Project Site could provide nesting habitat for ground-nesting bird species. If construction of the Proposed Project occurs during the bird breeding season (typically February 1 through August 31), ground-disturbing construction activities could directly affect birds protected by the MBTA and their nests through the removal of habitat on the Project Site, and indirectly through increased noise, vibrations, and increased human activity. Therefore, Mitigation Measure BIO-2 shall be implemented to avoid any significant impacts to nesting birds.

Mitigation Measure BIO-1:

Preconstruction Burrowing Owl Surveys - Preconstruction surveys for burrowing owl shall be conducted. The surveys shall follow the methods described in the CDFW's Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). Two surveys shall be conducted, with the first survey being scheduled between 30 and 14 days before initial ground disturbance (grading, grubbing, and construction), and the second survey being conducted no more than 24 hours prior to initial ground disturbance. If burrowing owls and/or suitable burrowing owl burrows are identified on the Project Site during the survey, the Project Proponent shall consult with CDFW and follow the methods listed in the CDFW's Staff Report on Burrowing Owl Mitigation (CDFG 2012) for avoidance and/or passive relocation. If burrowing owls or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified on the Project Site during the survey, these features must be completely avoided. If impacts to those features are unavoidable, then the Project Proponent must also develop an owl mitigation plan in consultation with CDFW. Mitigation methods may include passive relocation conducted outside of the owl breeding season (between September 1 and February 28). If an active owl burrow is identified, and construction is to proceed, then a qualified biologist (with two or more years of burrowing owl experience) can establish an appropriate disturbance-limit buffer around the burrow using flagging or staking. Construction activities shall not

occur within any buffer zones until the burrow is deemed inactive by the qualified biologist.

Mitigation Measure BIO-2:

Preconstruction Nesting Bird Survey - If construction or other Project activities are scheduled to occur during the nesting bird season (February 1 through August 31), a preconstruction nesting bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance. The nesting bird survey shall include the Project Site and adjacent areas where Project activities have the potential to affect active nests, either directly or indirectly, due to construction activity, noise, human activity, or ground disturbance. If an active nest is identified, a qualified avian biologist shall establish an appropriately sized non-disturbance buffer around the nest using flagging or staking. Construction activities shall not occur within any non-disturbance buffer zones until the nest is deemed inactive by the qualified avian biologist. If initial ground-disturbing activities are scheduled to occur during the nesting bird season, then a biological monitor shall be present during all vegetation removal activities to ensure no impacts to nesting birds occur.

Implementation of Mitigation Measures BIO-1 and BIO-2 would ensure that potential impacts to candidate, sensitive or special status species are avoided by the project.

b) **No Impact.** The Project Site consists of disturbed land that supports mostly non-native ruderal vegetation species. As stated in Biological Technical Report, the Project Site does not contain any riparian habitat or other sensitive natural communities that would need to be preserved. No impacts to sensitive natural communities are anticipated to result from the development of Proposed Project. No impacts are identified or anticipated, and no mitigation measures are required.

c) **No Impact.** Jurisdictional waters and wetlands include waters of the U.S., including wetlands regulated by the U.S. Army Corps of Engineers (USACE) pursuant to the Clean Water Act (CWA) Section 404; waters of the State regulated by the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act; and/or streambed and riparian habitat regulated by the CDFW pursuant to Sections 1600 et seq. of the CFG Code. The desktop review of the NRCS identified one hydric soil type on the site: Tujunga Gravelly Loamy Sand, 0 to 9 percent slopes. However, the National Wetland Inventory, National Hydrography Products, and USGS desktop map review did not identify any aquatic features within the Project Site. According to the results of the preliminary aquatic resources delineation, no state or federally protected wetlands or Waters of the U.S. were identified on the Project Site. Potential waters of the U.S., waters of the State, and CDFW jurisdictional habitat are not present within the Project Site. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

d) **Less than Significant.** Wildlife movement and the fragmentation of wildlife habitat are recognized as critical issues that must be considered in assessing impacts to wildlife. Habitat fragmentation is the division or breaking up of larger habitat areas into smaller areas that may or may not be capable of independently sustaining wildlife and plant populations. Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas.

The Project Site is located within and adjacent to areas containing existing disturbances (e.g., paved roads and residential, commercial, and industrial development). The Project Site is disturbed and contains insufficient vegetative cover to facilitate wildlife movement and it is isolated from large, contiguous blocks of native habitat. No migratory wildlife corridors or native wildlife nursery sites were identified within the Project site. No impacts to these resources are expected to occur during the development of the Proposed Project. No significant impacts are identified or anticipated, and no mitigation measures are required.

e) **Less than Significant.** Measure U is an adopted ballot measure that has been incorporated into the General Plan. In accordance with Measure U, the General Plan limits development potential in the Resource Preservation land use category in the eastern and southern canyon portions of the General Plan Planning Area.[7] The Project Site is not designated for Resource Conservation and the Project Site is not located in the canyons. The General Plan requires that new development take actions to protect biological resources. As summarized above, the Proposed Project would not result in any significant impacts to biological resources with implementation of Mitigation Measures BIO-1 and BIO-2.

In addition, as a regulatory requirement, the project construction contractor would be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) that would include standard construction Best Management Practices (BMPs) and other measures to ensure appropriate site protections are in place during construction to prevent potential adverse effects on water quality and related resources. Implementation of Mitigation Measures BIO-1 and BIO-2, the project's SWPPP, and construction and operation BMPs would ensure that the Proposed Project would not conflict with the General Plan policies for biological resources. No significant impacts are identified or anticipated, and no additional mitigation measures are required.

f) **No Impact.** The Project Site is not located within the boundaries of any adopted conservation plan. Therefore, no impact on any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan would occur. No impacts are identified or anticipated, and no mitigation measures are required.

[7] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017.

V. CULTURAL RESOURCES

Would the project	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

a) **Less than Significant with Mitigation.** A Cultural Resources Inventory and Evaluation Report was prepared for the Project Site in June 2022 by ECORP (see Appendix C for report). ECORP requested a records search for the property at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS) at California State University, Fullerton. ECORP received the results of the records search of the CHRIS from the SCCIC on February 4, 2022. Twenty-six previous cultural resource investigations have been conducted within 1 mile of the property, covering approximately 10 percent of the total area surrounding the property within the record search radius. The previous studies were conducted between 1976 and 2010. The results of the records search indicate that none of the property has been previously surveyed for cultural resources. The records search determined that a total of 54 cultural resources were previously recorded within 1 mile of the Project Site: 51 historic-period cultural resources and three pre-contact cultural resources. One of the historic-period resources overlaps the Project Site.

As a result of the field survey, ECORP updated one previously recorded resource (P-36-012351) within the Project Site and identified and recorded one new cultural resource (MW-001). These resources comprise an irrigation feature and a concrete pad, respectively. These resources were likely constructed and used when the Project Site was an active agricultural field. Significant cultural resources must meet at least one criteria that define eligibility for listing on either the California Register of Historical Resources (CRHR) or the National Register of Historic Places (NRHP). ECORP archaeologists have evaluated these resources as not eligible using NRHP and CRHR eligibility criteria, and not eligible for listing in the NRHP or CRHR under any criteria. Therefore, these finds are not considered Historical Resources under CEQA.

The Built Environment Resources Directory for San Bernardino County lists three properties within 1 mile of the Project Site that were determined to be ineligible for the NRHP.

There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Therefore, the Mitigation Measure CR-1 shall be implemented to avoid potential significant impacts to historical resources:

Mitigation Measure CR-1:

If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for precontact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead federal agency, the lead CEQA agency, and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a Historic Property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.
- The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed within TCR-1 below, regarding any pre-contact and/or historic-era finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.
- If significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to SMBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

b) **Less than Significant with Mitigation.** The Project Site contains Holocene alluvial deposits contemporaneous with human occupation of the region. Although ECORP archaeologists did not identify pre-contact resources during the field survey; however, there exists a moderate potential for buried pre-contact archaeological sites within the

Project Site due to the presence of Holocene alluvial deposits within the Project Site, the proximity of the Project Site to the Santa Ana River, and the presence of previously recorded pre-contact cultural resources within 1 mile of the Project Site. With implementation of Mitigation Measure CR-1 as described above, the Proposed Project would not result in potentially significant impacts to archaeological resources.

c) **Less than Significant with Mitigation.** The discovery of human remains is always a possibility during ground-disturbing activities. Therefore, possible significant adverse impacts have been identified or anticipated and Mitigation Measure CR-2 is required as a condition of project approval to reduce these impacts to a less than significant level.

Mitigation Measure CR-2:

If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease. The archaeologist shall notify the San Bernardino County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

VI. ENERGY

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

a) **Less than Significant.**

Electricity
Southern California Edison (SCE) provides electricity to the area of Project Site. Currently, the existing Project Site is vacant and undeveloped. Therefore, development of the Proposed Project would cause a permanent increase in demand for electricity when compared to existing conditions. The CalEEMod model projected that the Proposed Project would consume 0.917 GWh annually. According to the California Energy Commission, the commercial sector of the Southern California Edison planning area consumed 34,3738.76 GWh of electricity in 2020.[8] The increase in electricity demand from the project would represent a 0.003 percent of the overall 2020 SCE commercial consumption. Therefore, projected electrical demand would not significantly impact SCE's level of service.

Natural Gas

The Project Site is located within the service area of Southern California Gas (SoCal Gas). As CalEEMod does not include a "self-storage" as a defined land use sub-type, the "non-refrigerated warehouse no-rail" land use sub-type was applied to the model. Contrary to the CalEEMod-estimated natural gas demand for the Proposed Project, the Project Applicant has indicated that the Proposed Project would not require a connection to natural gas lines. Therefore, the Proposed Project would not significantly impact SoCal Gas's level of service.

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

b) Less than Significant. As concluded above, the Proposed Project's total impact on regional energy supplies would be minor. The proposed leasing office would be required to comply with the California Building Code (CBC) and California Green Building Standards Code (CALGreen Code) pertaining to energy and water conservation standards in effect at the time of construction. The Proposed Project includes the development of 835 storage units and a 700-SF leasing office, neither of which would have significant demand for electricity. In addition, the Proposed Project would not require connection to natural gas lines. The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and therefore no significant impacts are anticipated, and no mitigation measures are recommended.

[8]California Energy Commission. https://ecdms.energy.ca.gov/Default.aspx. Accessed April 15, 2022.

VII. GEOLOGY AND SOILS

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 181-B of the California Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

a)

i. **Less Than Significant.** The Project Site does not occur within an Alquist-Priolo Earthquake Fault Zone or San Bernardino County designated fault zone.[9] The nearest fault zone is the San Andreas Fault Zone, which is approximately 2 miles north of the Project Site. The Proposed Project would be required to comply with the California Building Code (CBC) requirements and all applicable statutes, codes, ordinances, and standards of the San Bernardino County Fire Department. Compliance with these codes and standards would address potential impacts resulting from an earthquake event. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

ii. **Less Than Significant.** As is the case for most areas of Southern California, ground shaking resulting from earthquakes associated with nearby and more distant faults may occur at the Project Site. The design of any structures on-site would incorporate measures to accommodate projected seismic ground shaking in accordance with the CBC and local building regulations. The CBC is designed to preclude significant adverse effects associated with strong seismic ground shaking. Compliance can ensure that the Proposed Project would not expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

iii. **Less Than Significant.** Liquefaction is a process whereby strong earthquake shaking causes sediment layers that are saturated with groundwater to lose strength and behave as a fluid. Ground failure associated with liquefaction can result in severe damage to structures. The Project Site is not located in an area susceptible to liquefaction.[10] Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

iv. **No Impact.** The Project Site is not located within an area susceptible to landslides.[11] The property and its immediate surroundings are relatively flat and level. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

b) **Less than Significant.** Construction activities could result in soil erosion if the Project Site is not properly designed. The potential impacts of soil erosion would be minimized through

[9] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.6-2: Faults.

[10] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.6-4: Liquefaction Susceptibility.

[11] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.6-3: Landslide Potential.

the preparation and implementation of a Storm Water Pollution and Prevention Plan (SWPPP). The SWPPP would prescribe temporary Best Management Practices (BMPs) to control wind and water erosion during and shortly after the construction of the proposed Project. Under proposed conditions, the Project Site would be developed with impervious surface and landscaping, thereby reducing the potential for soil erosion. Therefore, no significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

c) **Less than Significant.** The Project Site is relatively flat with no prominent geologic features. The Project Site is not within an area susceptible to landslides.[12] As stated above, the potential for liquefaction at the Project Site is very low. Because of the site's relatively flat topography and low liquefaction potential, it would not be susceptible to lateral spreading. In addition, the Proposed Project would be required to comply with the CBC. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

d) **Less than Significant.** Expansive soils (shrink-swell) are fine grained clay soils generally found in historical floodplains and lakes. Expansive soils are subject to swelling and shrinkage in relation to the amount of moisture present in the soil. Soil types within the Project Site consists of Hanford coarse sandy loam (HaC) and Tujinga gravelly loamy sand (TvC).[13] Loamy soils are usually a very stable soil that shows little change with the increase or decrease of moisture temperature.[14] Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

e) **No Impact.** The Proposed Project would connect to the City's existing sewer line along Wabash Avenue. No septic tanks or alternative wastewater disposal are proposed. No impacts are identified or are anticipated, and no mitigation measures are required.

f) **Less Than Significant with Mitigation.** Paleontological resources, including fossils, have been found in the Redlands area, and there is potential for paleontological finds to occur in remaining, unexcavated open space areas within and adjacent to the City.[15] These resources are found in geologic strata conducive to their preservation, typically sedimentary formations. Paleontological resources have been identified in San Timoteo Canyon area in the past. The Project Site is located approximately 5 miles northeast of San Timoteo Canyon. The general area of the Project Site is developed and consists of residential, commercial, and light industrial uses. In the event that paleontological resources are discovered, the following mitigation measure shall be implemented:

[12]Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.6-3: Landslide Potential.

[13] ECORP Consulting, Inc. Biological Technical Report. January, 2022.

[14] https://www.foundationrepairofca.com/foundation-repair/foundation-problems/settlement-sinking/foundation-soils.html

[15] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017.

Mitigation Measure GEO-1:

Establish a procedure for the management of paleontological materials found on-site during a development, including the following provisions:

- If materials are found on-site during grading, require that work be halted until a qualified professional evaluates the find to determine if it represents a significant paleontological resource.
- If the resource is determined to be significant, the paleontologist shall supervise removal of the material and determine the most appropriate archival storage of the material.
- Appropriate materials shall be prepared, catalogued, and archived at the applicant's expense and shall be retained within San Bernardino County if feasible.

VIII. GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of greenhouse gases.	☐	☐	☒	☐

a) **Less than Significant.** Emissions were estimated using CalEEMod version 2022.1 with construction anticipated to begin in 2023 and be completed in 2024. The CalEEMod defaults were used for other parameters which are used to estimate construction emissions, such as the worker and vendor trips and trip lengths. The operational mobile emissions were calculated using CalEEMod with the vehicle trip generation estimates from the Traffic Circulation & VMT Impact Assessment, dated August 9, 2022, prepared for the Proposed Project by Linscott Law & Greenspan. It was determined that the Proposed Project will generate approximately 189 total daily trips.

Many gases make up the group of pollutants which contribute to global climate change. However, three gases are currently evaluated and represent the highest concentration of GHG: Carbon dioxide (CO_2), Methane (CH_4), and Nitrous oxide (N_2O). On December 5, 2017, the City of Redlands adopted a Climate Action Plan (CAP), to focus on adaptive GHG measures that reduce emissions through standard practice measures and help prepare the City for the impacts of climate change. The CAP does not itself establish a numeric threshold of significance for determining impacts with respect to GHG emissions, however the City has utilized a screening threshold of 3,000 metric tons of carbon dioxide equivalent

(MTCO2e) per year to determine if a potential GHG related impact would occur from a project. The Proposed Project's emissions were compared to SCAQMD draft screening threshold of 3,000 metric tons CO2e. A summary of the results is shown below in Table 6 and Table 7.

Table 6
Greenhouse Gas Construction Emissions
(Metric Tons per Year)

Source/Phase	CO_2	CH_4	N_20	R[1]
2023	459	0.0	0.0	0.3
2024	63.1	0.0	0.0	--
Total ($MTCO_2e$)	**529.3**			
Construction Amortized 30 Years	**17.6**			

Source: CalEEMod.2022.1 Annual Emissions.
1) Common refrigerant GHGs used in air conditioning and refrigeration equipment.

Table 7
Greenhouse Gas Operational Emissions
(Metric Tons per Year)

Source/Phase	CO_2	CH_4	N_20	R[1]
Mobile	328	0.0	0.0	0.6
Area	4.4	0.0	0.0	--
Energy	327	0.0	0.0	--
Water	58.9	1.4	0.0	--
Waste	15.1	1.5	0.0	--
Refrigeration	--	--	--	545
Construction Amortized 30 Years	17.6			
Total ($MTCO_2e$)	**1,384.6**			
SCAQMD Threshold	**3,000**			
Significant	**No**			

Source: CalEEMod.2022.1 Annual Emissions.
1) Common refrigerant GHGs used in air conditioning and refrigeration equipment.

As shown in Table 6 and Table 7, the Proposed Project's emissions would not exceed SCAQMD's draft screening threshold and the City's threshold of significance.

b) **Less than Significant.** The SCAQMD's thresholds used the California Governor Executive Order S-3-05 goals as the basis for deriving the screening level. The Proposed Project's emissions meet the threshold for compliance with Executive Order S-3-05, the Proposed Project's emissions also comply with the goals of AB 32. Additionally, as the Proposed Project meets the current interim emissions targets/thresholds established by the SCAQMD (as described in Section III. Air Quality of this Initial Study), the Proposed Project would also be on track to meet the reduction target of 40 percent below 1990 levels by 2030 as mandated by SB 32. Furthermore, all of the post-2020 reductions in GHG emissions are addressed via regulatory requirements at the State level and the Proposed Project will be required to comply with these regulations as they come into effect. As

discussed, the Proposed Project's GHG emissions fall below the Tier 3 SCAQMD draft screening threshold of 3,000 metric tons of CO_2 equivalent per year and the Proposed Project is in compliance with the reduction goals AB 32 and SB 32. Furthermore, all of the post-2020 reductions in GHG emissions are addressed via regulatory requirements at the State level and the Proposed Project will be required to comply with these regulations as they come into effect.

The CAP quantifies existing and projected GHG emissions in the General Plan Planning Area through horizon year 2035 resulting from activities within the General Plan Planning Area and the region, and it includes GHG emissions reduction targets for the year 2035. The CAP did not identify any required measure to achieve the emission targets. The Draft EIR for the Redlands General Plan and CAP determined that the General Plan would meet all State-mandated emissions targets through 2035. As the Proposed Project would be consistent with the Project Site's land use designation of Commercial, it would not conflict with the CAP. Therefore, construction and operation of the Proposed Project will not conflict with any applicable plan, local or regional greenhouse gas plans. No significant impacts are identified or anticipated, and no mitigation measures are required.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Create a significant hazard to the public or the Environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard	☐	☐	☐	☒

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
or excessive noise for people residing or working in the project area?				
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

a, b) **Less Than Significant.** The Proposed Project includes the construction and operation of a self-storage facility and would not require the routine transport, use, storage, and disposal of limited quantities of common hazardous materials such as gasoline, diesel fuel, oils, solvents, paint, fertilizers, pesticides, and other similar materials. Operations would include standard maintenance (i.e., landscape upkeep, exterior painting and similar activities) involving the use of commercially available products (e.g., pesticides, herbicides, gas, oil, paint, etc.) the use of which would not create a significant hazard to the public. All materials required during construction would be kept in compliance with State and local regulations and BMPs. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

c) **No Impact.** The nearest school to Project Site is Redlands East Valley High School, approximately 0.3-mile southeast of the Project Site. No schools exist within 1/4-mile of the Project Site. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

d) **No Impact.** The Project Site is not included on a list of hazardous material sites as compiled pursuant to Government Code Section 65962.5 and reported in the EnviroStor database.[16] Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

e) **No Impact.** The nearest airport to the Project Site is the Redlands Municipal Airport, which is located approximately 0.8-mile north of the Project Site. The Project Site is not located within any Airport Compatibility Zone.[17] Therefore, no impact is identified or anticipated, and no mitigation measures are required.

[16] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.7-1: Hazardous Material Site.
[17] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.7-2: Airport Hazards.

f) **Less than Significant.** The Project Site does not contain any critical facilities.[18] It is adjacent to Naples Avenue, Jasper Avenue, and Wabash Avenue, which are not evacuation routes.[19] Access to the Project Site would be provided by two proposed driveways: one from Jasper Avenue and one from Wabash Avenue. Entries to the storage units would be gated. Additionally, the California Emergency Services Act requires the City to manage and coordinate the overall emergency and recovery activities within its jurisdictional boundaries. The City's Emergency Operations Plan includes policies and procedures to be administered by the City in the event of a disaster. During disasters, the City of Redlands is required to coordinate emergency operations with the County of San Bernardino. Policies within the City's General Plan and updates to the City's Emergency Plan, as required by State law, would ensure the Proposed Project would not interfere with adopted policies and procedures. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

g) **Less than Significant.** The Project Site is located in an area with moderate threat to fire hazards.[20] It is not located within a High or Very High Fire Hazard Severity Zone. The property is located in a developed area with residential, commercial, and industrial uses. The Project Site is not located adjacent to or near wildlands. The proposed development would replace the existing vegetation onsite with impervious surface, buildings with fire safety and fire suppression design elements, and proper landscaping, thereby reducing the risk of wildfire. Development of the Proposed Project shall comply with the California Fire Code. Therefore, the Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. No significant impacts are identified or anticipated, and no mitigation measures are required.

X. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede substantial groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a	☐	☐	☒	☐

[18] San Bernardino County. Countywide Policy Plan web maps: PP-1 "Critical Facilities." Accessed June 20, 2022.
[19] San Bernardino County. Countywide Policy Plan web maps: PP-2 "Evacuation Routes." Accessed June 20, 2022.
[20] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.7-3: Fire Hazards and Fire Safety Services.

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) impede or redirect flood flows?				
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or substantial groundwater management plan?	☐	☐	☒	☐

a) **Less than Significant.** The Proposed Project would disturb an approximate 6.34-acre site and would therefore be subject to the National Pollutant Discharge Elimination System (NPDES) permit. The State of California is authorized to administer various aspects of the NPDES. Construction activities covered under the State's General Construction permit include the removal of vegetation, grading, excavating, or any other activity that causes the disturbance of one acre or more. The General Construction permit requires recipients to reduce or eliminate non-storm water discharges into stormwater systems, and to develop and implement a SWPPP. The SWPPP is based on the principles of Best Management Practices (BMPs) to control and abate pollutants. The SWPPP must include BMPs to prevent project-related pollutants from impacting surface waters. The purpose of a SWPPP is to: 1) identify pollutant sources that may affect the quality of discharges of storm water associated with construction activities; and 2) identify, construct and implement storm water pollution control measures to reduce pollutants in storm water discharges from the construction site during and after construction.

The NPDES also requires a Water Quality Management Plan (WQMP), which is subject to review and approval by the City. A Preliminary WQMP was prepared for the Proposed Project by Hicks & Hartwick, Inc. (see Appendix D for report). The WQMP includes mandatory compliance of BMPs as well as compliance with NPDES Permit requirements. Review and approval of the WQMP by the City would ensure that all potential pollutants of concern are minimized or otherwise appropriately treated prior to being discharged from the Project Site. No significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

b) **Less Than Significant.** The Project Site is located within the City of Redlands water service area. Redlands' water supply is comprised primarily of surface water from the Santa Ana River (SAR) and Mill Creek and supplemented by groundwater extracted from the Bunker Hill Basin (part of the San Bernardino Basin) and Yucaipa Basin and a small amount of imported water when needed.[21]

The Urban Water Management Plan for City of Redlands is based on projected growth included in General Plans for areas within their service area. The Project Application includes an Ordinance Text Amendment to add "Self-storage with a minimum of 5 acres or more" as a use that requires a Conditional Use Permit (CUP) in the C-4 District. Although the Proposed Project requires an Ordinance Text Amendment, the proposed self-storage facility includes less water-intensive uses than the current C-4 district permitted uses, such as motels, retail stores, commercial greenhouses, etc. Therefore, the Proposed Project water demand is already anticipated in buildout projections of the General Plan Planning Area and incorporated into the Urban Water Management Plan.

Moreover, implementation of the project Best Management Practices (BMPs) would ensure that stormwater discharge does not substantially alter the existing drainage pattern and water quality, thereby allowing runoff from the Project Site to be utilized as a resource that can eventually be used for groundwater recharge. Therefore, the Proposed Project is not anticipated to have a substantial impact on groundwater supplies or interfere substantially with groundwater recharge. No significant impacts are identified or anticipated, and no mitigation measures are required.

c)

i) **Less than Significant.** Erosion is the wearing away of the ground surface as a result of the movement of wind or water, and siltation is the process by which water is affected by fine mineral particles in the water. Soil erosion could occur due to a storm event. The Construction General Permit requires the development and implementation of a SWPPP. The SWPPP must list BMPs to avoid and minimize soil erosion. Adherence to BMPs would prevent substantial soil erosion or the loss of topsoil. Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

ii, iii, iv)

Less than Significant. As stated in the WQMP, project flows from off-site areas and perimeter landscape areas within the drainage area are collected in drainage swales around the site perimeter and are conveyed through a storm drain system to two infiltration basins. The proposed buildings (storage units and leasing office) and parking lot/drive aisles would drain to a series of trench drain and catch basin inlets that all outlet through a storm drain system into the infiltrations basins for treatment. The outlet from the infiltration basins is a concrete curb drain spillway that drains to Wabash Avenue adjacent to the Project Site.

A Hydrology and Hydraulics preliminary report, prepared in January 2022 and updated in July 2022, was prepared for the Proposed Project by Hicks & Hartwick, Inc. (see

[21] Water Systems Consulting, Inc. and Woodard & Curran. 2020 Upper Santa Ana River Watershed Integrated Regional Urban Water Management Plan.

Appendix E for report). The report covers both the existing and proposed drainage conditions. The study watershed includes the Project Site, the RV storage facility to the east and a portion of the RV storage facility to the south.

The Proposed Project would convey the runoff through a basin and discharge into Wabash Avenue. The Proposed Project would cover the Project Site with impervious surface, thereby increasing the peak runoff flowrate and reducing the time of concentration. However, the Proposed Project basin will mitigate increases in peak run-off generated from the project development to less than or equal to 90% of the pre-development peak flow rate from the site. The Proposed Project would decrease total discharge from the Project Site from 47.4 cubic-feet-per second (CFS) to 45.4 CFS. Therefore, the Proposed Project would not result in impacts to downstream street capacities, properties, and facilities.

No significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

d) **Less Than Significant**. Due to the inland distance from the Pacific Ocean and any other significant body of water, tsunamis and seiches are not potential hazards at the site. The Project Site is neither located within a 100-year floodplain nor a 500-year floodplain.[22] Therefore, the risk of release of pollutants due to project inundation is low. No significant impacts are identified or anticipated, and no mitigation measures are required.

e) **Less than Significant.** Requirements of a NPDES permit to be issued for the Proposed Project would include development and implementation of a SWPPP and is subject to RWQCB review and approval. The purpose of an SWPPP is to: 1) identify pollutant sources that may affect the quality of discharges of stormwater associated with construction activities; and 2) identify, construct and implement stormwater pollution control measures to reduce pollutants in stormwater discharges from the construction site during and after construction. The SWPPP would include BMPs to control and abate pollutants, and treat runoff that can be used for groundwater recharge. The Proposed Project would not otherwise substantially degrade water quality as appropriate measures relating to water quality protection would be implemented. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

XI. LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Physically divide an established community?	☐	☐	☐	☒

[22] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.9-2 "Flood Hazards."

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

a) **No Impact.** The physical division of an established community is typically associated with construction of a linear feature, such as a major highway or railroad tracks, or removal of a means of access, such as a local road or bridge, which would impair mobility in an existing community or between a community and an outlying area. The Proposed Project does not include the construction of a linear feature and is not within a defined neighborhood area, and the Project Site is currently vacant. Therefore, the Proposed Project would neither physically divide an established community nor cause a significant environmental impact due to conflict with any land use plans or policies. No impacts would occur, and no mitigation measures are required.

b) **Less Than Significant.** The Project Site is currently undeveloped. It is designated Commercial and has a zoning of Highway Commercial (C-4). The purpose of the C-4 zone is to provide for the development of commercial enterprises adjacent to the major thoroughfares of the community. The Proposed Project is development of a self-storage facility with 11 buildings to include 835 units and a leasing office. The Project Application includes an Ordinance Text Amendment to add "Self-storage with a minimum of 5 acres or more" as a use that requires a Conditional Use Permit (CUP) in the C-4 District. The Proposed Project would be subject to the development standards required for uses within the C-4 District. Therefore, the Proposed Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No significant impacts are identified or anticipated, and no mitigation measures are required.

XII. MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

a, b) **Less than Significant.** The Project Site is located within a Mineral Resource Zone-2 (MRZ-2).[23] MRZ-2 are areas where geologic data indicate that significant PCC-Grade aggregate resources are present. The Project Site is located in a developed area of the city with residential, commercial, and light industrial uses. The Project Site is surrounded by development on all sides: residential and commercial uses to the north, an RV storage facility to the south, an RV storage facility to the east, and residential development and commercial shopping center to the west. The surrounding uses make the site unsuitable for mineral resources extraction. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

XIII. NOISE

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

a) **Less than Significant.** The unit of measurement used to describe a noise level is the decibel (dB). The human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, the "A-weighted" noise scale, which weights the frequencies to which humans are sensitive, is used for measurements. Noise levels using A-weighted measurements are written dB(A) or dBA.

Construction

The City's Municipal Code Sections 8.06.120 (G) and 8.06.090 limit the hours of construction to between the hours of 7:00 AM and 6:00 PM, including Saturdays, with no

[23] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.11-1: Mineral Resources.

activities taking place at any time on Sundays or federal holidays. Per the EIR prepared for the City of Redlands General Plan (2019), a substantial temporary increase in ambient noise levels from construction noise would be considered less than significant if construction activities comply with the City's Noise Control Ordinance in the Municipal Code, Section 8.06.090. Project construction will not occur outside of the hours outlined as "exempt" in City's Municipal Code Sections 8.06.120 (G) and 8.06.090; and therefore, will not result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance. Impacts would be less than significant.

Operation

The Proposed Project is the development of a self-storage facility to include a leasing office. The proposed office space is not anticipated to generate any significant noise. The primary source of noise generated by the Proposed Project is on-site traffic. Noise levels associated with the operation of the Proposed Project are not expected to be significant as the Proposed Project is anticipated to generate approximately 189 trips per day with 12 AM peak hour trips and 20 PM peak hour trips. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

b) **Less than Significant.** Groundborne vibration and groundborne noise could originate from earth movement activities during the construction phase of the Proposed Project. Ground-borne vibration levels resulting from construction activities occurring at the Project Site would be temporary and construction activities would generate low levels of ground-borne vibration within the Project Site include grading. The City's Municipal Code Sections 8.06.120 (G) and 8.06.090 limit the hours of construction to between the hours of 7:00 AM and 6:00 PM, including Saturdays, with no activities taking place at any time on Sundays or federal holidays. Therefore, the vibration impacts due to Project construction are anticipated to result in less than significant impacts regarding exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

c) **Less Than Significant.** The nearest airport to the Project Site is the Redlands Municipal Airport, which is located approximately 0.8-mile north of the Project Site. The Project Site is not located within any Airport Compatibility Zone. Therefore, the Proposed Project would not expose people residing or working in the project area to excessive noise levels. No significant impacts are identified or anticipated, and no mitigation measures are required.

XIV. POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) **Less Than Significant.** Construction of the Proposed Project would not be expected to attract a substantial number of new employees to the area since there is an existing pool of construction labor in Redlands and surrounding cities. In 2019, the City was estimated to have 1,662 construction laborers and San Bernardino County was estimated to have 68,852 construction laborers.[24] Construction activities would be temporary and would not attract new employees to the area.

The Project Application includes an Ordinance Text Amendment to add "Self-storage with a minimum of 5 acres or more" as a use that requires a Conditional Use Permit (CUP) in the C-4 District. The Proposed Project includes 123,456 square-feet (SF) of building coverage, of which 700 SF is proposed as office space. The Proposed Project would require at most two employees, based on one employee per 697 SF of office area.[25] In contrast, a retail development with the same building coverage would require approximately 122 employees.[26] Employment in the City is anticipated to increase by approximately 15,521 jobs between 2016 and 2035.[27] The Proposed Project would represent approximately 0.01% of the City's projected employment growth between 2016 and 2035. Therefore, it would not induce substantial unplanned population growth within the City. No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

b) **No Impact.** The Project Site is currently undeveloped. Implementation of the Proposed Project would neither displace existing housing nor require construction of replacement housing elsewhere. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

[24] U.S. Census Bureau. 2019: ACS 5-Year Estimates Data Profiles.
[25] The Natelson Company, Inc. Employment Density Study. October 31, 2001. For San Bernardino County, the average square-feet per employee is 1,009.
[26] The Natelson Company, Inc.. Employment Density Study. October 31, 2001.
[27] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017.

XV. PUBLIC SERVICES

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire Protection?	☐	☐	☒	☐
Police Protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other Public Facilities?	☐	☐	☒	☐

a)

Fire Protection

Less than Significant. Fire protection at the Project Site would be provided by the City of Redlands Fire Department (emergency operations, fire prevention services, and emergency medical services). The City of Redlands is served by four Redlands Fire Stations and responds as an all-risk fire and EMS agency. The Redlands Fire Department responded to 11,386 calls for service in 2021 and experiences a 6.65 percent increase on average annually. The Redlands Fire Department is staffed with 52 sworn personnel, of which 41 personnel are Paramedics and 16 are Emergency Medical Technicians. The Redlands Fire Department strives to meet the National Fire Protection Association (NFPA) standards, which recommend that the first arriving unit arrive within four minutes 90 percent of the time. A more lenient goal of arriving eight minutes and 30 seconds 90 percent of the time, per the June 25, 2020 Fire Department Assessment and Deployment Study for the Redlands Fire Department, is a more realistic objective given the analysis within the study.

Currently, only 34 percent of the city is within an Effective Response Force (ERF) during congested periods. The Fire Department will be able to improve service levels with the addition of two new fire stations and the relocation of a third. This will increase the four-minute service response time by 60 percent, providing an improvement in the ability of first responders to reach areas within the community that are currently outside of a four-

minute response time window. San Bernardino County Fire Station 9, located at 1300 Crafton Avenue, is located approximately 0.8-mile east of the Project Site. Average travel time between County Fire Station 9 and the Project Site is approximately two minutes.[28] Automatic aid provided by Station 9 to the City of Redlands is a contractual arrangement that ensures the best outcome for the patient and/or reduced property loss. This agreement is designed to have reciprocity and cooperation among fire agencies and can be rescinded if reciprocity is not achieved. Redlands Fire Department responds to multiple calls at one time (2 or more) 13.83 percent of the time. This is a significant percentage of calls that continues to rise based on the current fire and EMS defense system in the City.

Development of the Proposed Project may insignificantly increase the demand for fire protection services as it could increase the local area's employee population by approximately two people. The Proposed Project is required to meet minimum fire safety requirements of Title 24 which helps to support fire suppression activities, including building construction, automatic fire sprinkler systems, fire hydrants, and paved fire access. The City's Fire Department and the Building Division enforce fire safety standards during review of building plans and inspections. Development impact fees (DIF) are collected at the time of building permit issuance and would increase funding to assist in reducing impacts to fire protection services. Therefore, less than significant adverse impacts are identified or anticipated, and no mitigation are required.

Police Protection

Less than Significant. The City of Redlands Police Department (RPD) provides police protection for the Project Site and vicinity. The service ratio for the City is 1.1 officers per 1,000 residents. Though the City does not have a service ratio standard, the City recognizes that its ratio falls below the national average of 2.1, and that hiring additional officers would be optimal.[29] In 2015, the RPD had an average response time of 6.5 minutes for police services. Although there are no industry standards for response time to emergency calls, according to the City of Redlands, a response time of 4.5 minutes is desirable in a city of Redlands' size. Development of the Proposed Project may incrementally increase the demand for police protection services due to the increased local employee population. In its review of new development plans, the RPD evaluates project plans on its ability to provide proper police protection to the development. Additionally, the proponent of the Proposed Project would be required to pay service fees and DIF to the RPD. The DIF would be used to fund capital costs associated with acquiring land for new police stations, constructing new police stations, purchasing crime-fighting equipment for new police stations, and providing for additional staff as needed and as identified by the City. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

[28] Timing is based on passenger-car travel and is therefore conservative.
[29] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017.

Schools

Less than Significant. The Redlands Unified School District (RUSD) provides public schools in the General Plan Planning Area, which includes the Project Site. Construction and operation of new school facilities would be funded through school impact fees assessed on new developments that occur within the school district. The Proposed Project is not anticipated to substantially increase population growth within the area, as the future employees would likely come from the local area (see XIV-a above), and therefore would not generate new students. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

Parks

Less than Significant. The Redlands Parks Division currently operates 18 parks.[30] Implementation of the Proposed Project would not induce residential development and would not significantly increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of any facilities would result. Additionally, collection of DIF would ensure no significant impacts to parks would occur. The Redlands Municipal Code provides for open space and park fees (i.e. DIF) to be imposed as a condition of approval of new residential, commercial, and office and industrial development (Chapter 3.32). The DIF are intended to ensure that open space lands and active and passive parks are made available to the public concurrent with the need for such lands and parks caused by new development. They may be used to pay for costs incurred by the City for acquiring, developing, improving, and expanding open space areas, scenic drives, parks, playgrounds, and recreational facilities to meet the increased needs for those facilities resulting from the effects of new development. Collection of the DIF would ensure no significant impacts to parks would occur. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

Other Public Facilities

Less than Significant. DIF are charged by local governments to defray all or a portion of the cost of public facilities related to development projects. The requirements for enactment of a development impact fee program are set forth in Government Code Sections 66000-66025 (the "Mitigation Fee Act"). In Redlands, DIF are collected at the time a building permit is issued for the purpose of mitigating the impacts caused by new development on the City's infrastructure. Fees are used to finance the acquisition, construction, and improvement of public facilities needed as a result of a new development. A separate funding structure has been established to account for the impact of new development on each of the following types of public facilities: Open Space, Parks, Public Facilities (including public safety, library and general government facilities), Transportation, Water, Solid Waste, and Sewer. Collection of DIF would ensure no significant impacts to other

[30] City of Redlands. City-Owned and Operated Parks. https://www.cityofredlands.org/parks. Accessed August 9, 2022.

public facilities would occur. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

XVI. RECREATION

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a) **Less than Significant.** The Redlands Parks Division currently operates 18 parks. Implementation of the Proposed Project would not induce residential development and would not significantly increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of any facilities would result.

The Redlands Municipal Code provides for open space and park fees to be imposed as a condition of approval of new residential, commercial, and office and industrial development (Chapter 3.32). The fees are intended to ensure that open space lands and active and passive parks are made available to the public concurrent with the need for such lands and parks caused by new development. They may be used to pay for costs incurred by the City for acquiring, developing, improving, and expanding open space areas, scenic drives, parks, playgrounds, and recreational facilities to meet the increased needs for those facilities resulting from the effects of new development. Collection of DIF would ensure no significant impacts to parks would occur. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

b) **No Impact.** The Proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

XVII. TRANSPORTATION

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

a) **Less Than Significant.** A Traffic Circulation & VMT Impact Assessment, dated August 9, 2022, was prepared for the Proposed Project by Linscott, Law & Greenspan (see Appendix F for report). The Proposed Project is forecast to generate 189 daily trips, with 12 trips (6 inbound, 6 outbound) produced in the AM peak hour and 20 trips (10 inbound, 10 outbound) produced in the PM peak hour on a "typical" weekday. The Connected City theme of the General Plan promotes an efficient and integrated circulation system by enhancing the vehicular, biking, walking, and transit networks. The following analysis details project consistency with the applicable Connected City proposed actions:

5-A.14: Close the gaps in the sidewalk network where streets are built out but sidewalks are not complete.

Consistency: The segments of Wabash Avenue, Naples Avenue, and Jasper Avenue adjacent to the Project Site are currently missing sidewalks. The Proposed Project would provide landscaped sidewalks along the sections.

5-A.15: Maintain access for emergency vehicles and services by providing two means of ingress/egress into new communities, limitations on the length of cul-de-sacs, proper roadway widths and road grades, adequate turning radius, and other requirements per the California Fire Code.

Consistency: Access for the Proposed Project will be provided via one (1) 30-foot driveway located along Wabash Avenue and 1 30-foot driveway located along Jasper Avenue. Recreational vehicles and small moving vans (i.e. U-Haul, etc.) will be able to adequately circulate throughout the site. The driveway width has been confirmed and are generally adequate for large pick-up trucks and small moving vans.

5-A.24: Use the City's Bicycle Master Plan as the primary resource for planning and implementing bikeway improvements.
5-A.26: Implement bicycle and trail improvements that provide strong north-south connections, especially with major eastwest trails, including routes on Mountain View Avenue, California Street, Nevada Street, Alabama Street, Texas Street, New York Street, Orange Street, Church Street, Dearborn Street, and Wabash Avenue.

Consistency: The portion of Wabash Avenue adjacent to the Project Site is a proposed future bike route.[31] The Proposed Project would dedicate 4 feet to the right-of-way along Wabash Avenue, which would allow for future bicycle and trail improvements along that street.

5.A.47: Maximize the carrying capacity of arterials and boulevards by controlling the number of driveways and intersections, limiting residential access where applicable, and requiring sufficient on-site parking to meet the needs of proposed projects.

Consistency: Access to the Proposed Project would be provided by two gated driveways, one along Wabash Avenue and the other along Jasper Avenue. The Proposed Project is required to provide a minimum of 4 parking stalls. The Project Applicant would provide 5 parking stalls.

5-A.53: Allow the City Engineer to require additional right-of-way and pavement width for local and collector roads in the Commercial, Commercial/Industrial, Light Industrial, and Public/Institutional land use designations based on existing street sections, traffic volumes, and truck traffic.

Consistency: The Project Site is designated Commercial. Wabash Avenue adjacent to the Project Site is identified as a minor arterial road. Jasper Avenue adjacent to the Project Site is identified as a local road.[32] The Proposed Project includes a Street vacation to vacate 3 feet on Jasper Avenue. With this street vacation, the Jasper Avenue right-of-way would be 63 feet wide. Local streets are two-lane roads with 60 feet dedicated to the right-of-way.[33] Therefore, the requested street vacation would neither conflict with Jasper Avenue's street classification.

5-A.68: Provide for direct pedestrian paths and access from new developments to the nearest public transportation stop.

Consistency: OmniTrans Bus Route #8 includes a bus stop on the intersection of Lugonia Avenue and Wabash Avenue, approximately 500 feet north of the Project Site.

[31] Dyett and Bhatia. City of Redlands General Plan 2035. Adopted December 5, 2017. Figure 5-3: "Bicycle Facilities."
[32] Dyett and Bhatia. City of Redlands General Plan 2035. Adopted December 5, 2017. Figure 5-5: "Roadway Classification."
[33] Dyett and Bhatia. City of Redlands General Plan 2035. Adopted December 5, 2017. Figure 5-6: "Illustrative Street Sections."

The Proposed Project would provide sidewalks along Project Site frontage on Wabash Avenue, Naples Avenue, and Jasper Avenue.

As summarized above, the Proposed Project would not conflict with the Connected City theme of the General Plan. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

b) **Less than Significant**. The approach and methodology outlined in the VMT Assessment is based on the City of Redlands CEQA Assessment VMT Analysis Guidelines and is generally consistent with the Technical Advisory for Evaluating Transportation Impacts In CEQA, published by the Governor's Office of Planning and Research (OPR). The City of Redlands has developed SB 743 VMT Impact Screening Criteria to serve as a screening tool for potential VMT impacts associated with select land use projects in the city.

Small project screening applies to projects with low trip generation per CEQA exemptions or results in a 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) per year screening level threshold, based on the County of San Bernardino's Climate Action Plan and South Coast Air Quality Management District's draft interim guidance for assessing project-level greenhouse gas impacts. Since the Proposed Project consists of mini-warehousing of 123,456 SF, which is less than the "Small Projects" (< 3,000 MT CO2e) threshold of 463,600 square feet, this project could be screened from a VMT analysis and would not have a significant transportation related CEQA impact. No significant impacts are identified or anticipated, and no mitigation measures are required.

c) **Less than Significant.** The Project Site is not adjacent to windy roads or dangerous intersections. The Proposed Project is development of a self-storage facility. It does not include a geometric design or incompatible uses that would substantially increase hazards. The Proposed Project would be compatible with the surrounding commercial and light industrial uses, and does not include uses that would be obtrusive to the nearby residential uses. The Proposed Project is required to provide a minimum of four parking stalls; the Proposed Project would provide five. The on-site circulation layout of the Proposed Project would provide adequate spacing for reciprocal access. Recreational vehicles and small moving vans (i.e. U-Haul, etc.) will be able to adequately circulate throughout the site, thereby ensuring that project vehicles do not park off-site and interfere with external traffic. Roadway frontage improvements would be designed and constructed to satisfy all City requirements for street widths, corner radii, and intersection control, as well as incorporate design standards tailored specifically to site access requirements. The Site Plan is subject to approval by the City of Redlands Fire Department. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

d) **Less than Significant.** Access for the Proposed Project will be provided via 1 30-foot driveway located along Wabash Avenue and 1 30-foot driveway located along Jasper Avenue. Recreational vehicles and small moving vans (i.e. U-Haul, etc.) will be able to adequately circulate throughout the site. The driveway width has been confirmed and are generally adequate for large pick-up trucks and small moving vans. The proposed internal driveways would be at least 26-feet throughout the Project Site. The on-site circulation

layout of the Proposed Project would provide adequate spacing for reciprocal access. The Proposed Project includes a Street vacation to vacate 3-feet on Jasper Avenue. With this street vacation, the Jasper Avenue right-of-way would be 63-feet wide. As stated previously, the segment of Jasper Avenue adjacent to the Project Site is identified as a local road. Local streets are two-lane roads with 60-feet dedicated to the right-of-way.[34] Therefore, the requested street vacation would neither conflict with Jasper Avenue's street classification nor interfere with circulation along that road. During construction, the contractor would be required to maintain adequate emergency access for emergency vehicles. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is?				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or?	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

a)

i) **Less Than Significant with Mitigation.** A Cultural Resources Inventory and Evaluation Report was prepared for the Project Site in June 2022 by ECORP. A records search of the California Historical Resources Information System at the South Central Coastal Information Center indicated that no previous cultural resource studies have been

[34] Dyett and Bhatia. City of Redlands General Plan 2035. Adopted December 5, 2017. Figure 5-6: "Illustrative Street Sections."

conducted within the Project Site. Twenty-six studies have been conducted within 1 mile of the Project Site. Fifty-four cultural resources were previously recorded within 1 mile of the Project Site. One previously recorded resource, P-36-012351, Wingate Ranch, extends into the Project Site. A search of the Sacred Lands File was completed by the California Native American Heritage Commission and resulted in a positive finding, indicating that Native American Sacred Lands have been recorded in the Project Site. As a result of the field survey, one historic-period cultural resource was recorded inside the Project Site: MW-001, a concrete pad associated with agriculture. Resource P-36-012351 and newly identified resource MW-001 have both been evaluated as not eligible for the NRHP or the CRHR under any criteria. Due to the presence of Holocene sediments within the Project Site, there is a moderate potential for the discovery of subsurface deposits or eligible sites within the Project Area. With implementation of Mitigation Measure CR-1, potential impacts to tribal cultural resources are anticipated to be less than significant.

ii) **Less Than Significant with Mitigation.** California Assembly Bill 52 (AB52) was approved by Governor Brown on September 25, 2014. AB52 specifies that CEQA projects with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource may have a significant effect on the environment. As such, the bill requires lead agency consultation with California Native American tribes traditionally and culturally affiliated with the geographic area of a proposed project, if the tribe requested to the lead agency, in writing, to be informed of proposed projects in that geographic area. The legislation further requires that the tribe-requested consultation be completed prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

On April 11, 2022, the City provided notification to the following tribes in accordance with AB52: the Gabrieleno Band of Mission Indians – Kizh Nation (Gabrieleno), Soboba Band of Luiseno Indians (Soboba), Yuhaaviatam of San Manuel Nation (SMBMI), Torres Martinez Desert Cahuilla Indians, and Morongo Band of Mission Indians.

In an email dated May 9, 2022, SMBMI indicated that the Project Site exists within Serrano ancestral territory and is therefore of interest to the Tribe. However, SMBMI did not have any concerns with the project's implementation, at the time of writing the email. The Tribe requested that the following mitigation measures be incorporated:

Mitigation Measure TCR-1:

The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed in CR-1, of any pre-contact and/or historic-era cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with SMBMI, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that

represents SMBMI for the remainder of the project, should SMBMI elect to place a monitor on-site.

Mitigation Measure TCR-2:

Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to SMBMI. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI throughout the life of the project.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a) **Less Than Significant.** The Project Site is located within the City of Redlands water and sewer service areas. The Proposed Project would connect to the existing 20-inch water lines along Wabash Avenue and to the existing 18-inch sewer line along Wabash Avenue.

The Proposed Project would be serviced by Southern California Edison (SCE), which provides electrical service to the general area. There is an existing electric and telephone pole at the intersection of Naples Avenue and Chrysolite Avenue that the Proposed Project will connect to.

There are existing Southern California Gas (SoCal) gas lines along Wabash Avenue. However, the Project Applicant has indicated that no connection is necessary for the Proposed Project.

The Proposed Project would convey the project runoff to a proposed infiltration basin before discharging to the existing drainage facilities along Wabash Avenue.

The Proposed Project is not anticipated to require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities that would cause significant environmental effects. No significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

b) **Less than Significant.** The Project Site is located within the City of Redlands water service area. Redlands's water supply is comprised primarily of surface water from the Santa Ana River and Mill Creek and supplemented by groundwater extracted from the Bunker Hill Basin (part of the San Bernardino Basin) and Yucaipa Basin and a small amount of imported water when needed.[35] The Urban Water Management Plan (UWMP) for City of Redlands is based on projected growth included in General Plans for areas within their service area.

Per UWMP requirements, Redlands has evaluated reliability for an average year, single dry year, and a 5 consecutive dry year period. Redlands's demands in single dry years are assumed to increase by 10% above normal year demands. The local groundwater basins Redlands produces water from have storage for use in dry years so Redlands's supplies are 100% reliable during normal and single dry years.[36] Moreover, Redlands can produce the volume of water needed to meet 100% of demands in multiple dry years.[37]

The Project Application includes an Ordinance Text Amendment to add "Self-storage with a minimum of 5 acres or more" as a use that requires a Conditional Use Permit (CUP) in the C-4 District. Although the Proposed Project requires an Ordinance Text Amendment, the proposed self-storage facility includes less water-intensive uses than the current C-4

[35] Water Systems Consulting, Inc. and Woodard & Curran. 2020 Upper Santa Ana River Watershed Integrated Regional Urban Water Management Plan.
[36] Water Systems Consulting, Inc. and Woodard & Curran. 2020 Upper Santa Ana River Watershed Integrated Regional Urban Water Management Plan.
[37] Water Systems Consulting, Inc. and Woodard & Curran. 2020 Upper Santa Ana River Watershed Integrated Regional Urban Water Management Plan.

district permitted uses, such as motels, retail stores, commercial greenhouses, etc. Therefore, the Proposed Project water demand is already anticipated from buildout of the General Plan Planning Area. Since the City has sufficient water supplies to meet current and future development consistent with its General Plan through the year 2035, additional water storage and treatment facilities are not anticipated to be required through build out of the General Plan in 2035.

No significant impacts are identified or anticipated, and no mitigation measures are required.

c) **Less Than Significant**. Sewer service in the General Plan Planning Area is provided by the City of Redlands. The Redlands Wastewater Treatment Plant (WWTP) has a secondary treatment capacity of 9.5 million gallons per day (mgd).[38] Approximately 6 million gallons of that capacity is in a membrane bioreactor system, the remaining 3.5 million gallons is in a conventional activated sludge process. The WWTP meets all current regional, State, and federal requirements for secondary treatment. The City regularly samples the WWTP's influent and effluent to ensure compliance with State regulations. Current regulations require compliance with water quality standards and these measures would preclude development lacking adequate utility capacity, including wastewater treatment capacity. The Proposed Project would be reviewed by the City and the applicable wastewater providers to determine that sufficient sewer capacity exists to serve the additional population that would be generated by project. The City would continue to coordinate with the wastewater service providers to ensure that new development would not exceed the capacity of wastewater conveyance and treatment facilities. The Proposed Project would be required to pay development impact fees based on the volume of wastewater generated. However, the proposed 700-SF leasing office would be the only wastewater-generating use and flows would be minimal as the office does not include living space. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

d) **Less than Significant.** Solid waste from Redlands is primarily disposed of at the California Street Landfill operated by the Quality of Life Department and the San Timoteo Sanitary Landfill operated by the County, both within the city limits. The California Street Landfill is located at 2151 Nevada Street and encompasses 115 acres. Its design capacity is 11.4 million cubic yards, and its maximum permitted capacity is 10 million cubic yards. It has a maximum permitted throughput of 829 tons per day. As of July 25, 2018, it has a remaining capacity of 5,168,162 cubic yards.[39] The San Timoteo Sanitary Landfill is located on San Timoteo Canyon Road and is 366 acres in size. It has a permitted capacity of 20,400,000 cubic yards and a maximum permitted daily throughput of 2,000 tons. As of April 30, 2019, the remaining capacity was 12,360,396 cubic yards.[40]

The California Department of Resources Recycling and Recovery (CalRecycle) provides unofficial estimates of solid waste generation and disposal rates for five different land use

[38] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017.
[39] CalRecycle. Solid Waste Information System database.
[40] CalRecycle. Solid Waste Information System database.

or business types: commercial, industrial, institutional, residential, and service. Given that the proposed development project is a self-storage facility, the only daily generation of waste would come from the proposed 700-SF leasing office. Based on these uses, the Proposed Project is estimated to generate a total of 4.2 pounds of solid waste per day, or approximately 0.002 tons per day (0.006 pounds per square-feet of office space per day).[41] It is anticipated that patrons of the storage facility would contribute minimally to the generation of solid waste on a daily basis through clean out of units.

Therefore, the Proposed Project solid waste generation contribution to these landfills would be nominal and would not exceed the daily permitted capacities of these facilities. No significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

e) **Less than Significant.** The Proposed Project would be required to comply with City of Redlands Municipal Chapter 13.66 (Recycling Requirements for Specified Developmental Activity). Chapter 13.66 establishes requirements for recycling by specified development activities to facilitate the City's compliance with state recycling mandates, remove architectural barriers to recycling and ensure the recycling of construction and demolition. The Project Applicant is required to coordinate with a waste hauler to collect solid waste on a common schedule as established in applicable local, regional, and State programs. The Proposed Project shall adhere the California Integrated Waste Management Act of 1989 (AB 939), AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991), and any other applicable local, State, and federal solid waste management regulations. Therefore, no significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or	☐	☐	☒	☐

[41] CalRecycle. Estimated Solid Waste Generation Rates. Accessed June 23, 2022.

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
other utilities) that may exacerbate fire risk or that may result in temporary ongoing impacts to the environment?				
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

a) **Less than Significant.** The Project Site does not contain any critical facilities. It is adjacent to Naples Avenue, Jasper Avenue, and Wabash Avenue, which are not evacuation routes.[42] Access to the Project Site would be provided by two proposed driveways: one from Jasper Avenue and one from Wabash Avenue. Entries to the storage units would be gated. Additionally, the California Emergency Services Act requires the City to manage and coordinate the overall emergency and recovery activities within its jurisdictional boundaries. The City's Emergency Operations Plan includes policies and procedures to be administered by the City in the event of a disaster. During disasters, the City of Redlands is required to coordinate emergency operations with the County of San Bernardino. Policies within the City's General Plan and updates to the City's Emergency Plan, as required by State law, would ensure the Proposed Project would not interfere with adopted policies and procedures. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

b) **Less than Significant.** The Project Site is located in an area with moderate threat to fire hazards.[43] It is not located within a High or Very High Fire Hazard Severity Zone. The property is located in a developed area with residential, commercial, and light industrial uses. The Project Site is not located adjacent to or near wildlands. Development of the Proposed Project shall comply with the California Fire Code. Therefore, the Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. No significant impacts are identified or anticipated, and no mitigation measures are required.

c) **Less than Significant.** The Proposed Project may include the installation of utilities; however, installation, operation and maintenance of utilities would be in compliance with fire safety regulations. The Project Site is not located within a Very High Fire Hazard Severity Zone.[44] The proposed self-storage facility would replace the existing vegetation onsite with impervious surface, buildings with fire safety and fire suppression design elements, and proper landscaping, thereby reducing the risk of wildfire. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

[42] San Bernardino County. Countywide Policy Plan web maps: PP-2 "Evacuation Routes." Accessed June 21, 2022
[43] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.7-3: Fire Hazards and Fire Safety Services.
[44] Placeworks. San Bernardino Countywide Policy Plan Draft EIR. Hazards and Hazardous Materials. Figure 5.8-6 "Fire Severity and Growth Areas in the East Desert Regions."

d) **Less than Significant.** The Project Site is neither located within a 100-year floodplain nor a 500-year floodplain.[45] Furthermore, it is not located within a High or Very High Fire Hazard Severity Zone. The property is located in a relatively flat and developed area. The Project Site is not located adjacent to or near wildlands. Therefore, the Proposed Project would not expose persons or structures to post-fire slope instability or post-fire drainage. No significant impacts are identified or are anticipated, and no mitigation measures are required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE:

	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) **Less than Significant with Mitigation**. A Biological Technical report was prepared in June 2022 for the Proposed Project by ECORP. The literature review and database searches identified 32 special-status plant species that have been documented in the vicinity of the Project Site. The 32 special-status plant species were presumed to be absent due to the lack of suitable habitat onsite. Of the 49 special-status wildlife species identified in the literature review and database searches, one was found to have a low potential to occur: burrowing owl. During the survey, no suitable burrows or burrow-like structures were observed on or adjacent to the Project Site. The site contained marginally suitable burrowing owl habitat consisting of low-growing ruderal grassland habitat and friable, sandy loam soils. To avoid potentially significant impacts to burrowing owl, Mitigation Measure BIO-1 shall be

[45] Dyett and Bhatia. City of Redlands General Plan Update and Climate Action Plan EIR. July 21, 2017. Figure 3.9-2 "Flood Hazards."

implemented. The remaining 48 special-status wildlife species are presumed absent from occurring on or adjacent to the site due to the lack of suitable habitat; proximity to the surrounding residential, commercial, and industrial development; and the presence of anthropogenic disturbances associated with the commercial and industrial development surrounding the site. The Peruvian pepper tree observed on the Project Site and the trees immediately adjacent to the Project Site could provide nesting habitat for nesting birds and ground nesting bird species. If construction of the Proposed Project occurs during the bird breeding season (typically February 1 through August 31), ground-disturbing construction activities could directly affect birds protected by the MBTA and their nests through the removal of habitat on the Project Site, and indirectly through increased noise, vibrations, and increased human activity. Impacts to nesting birds would be less than significant with the implementation of Mitigation Measure BIO-2

A Cultural Resources Inventory and Evaluation Report was prepared for the Project Site in June 2022 by ECORP. The inventory included a records search, literature review, and field survey. A records search of the California Historical Resources Information System at the South Central Coastal Information Center indicated that no previous cultural resource studies have been conducted within the Project Site. Twenty-six studies have been conducted within 1 mile of the Project Site. Fifty-four cultural resources were previously recorded within 1 mile of the Project Site. One previously recorded resource, P-36-012351, extends into the Project Site. A search of the Sacred Lands File was completed by the California Native American Heritage Commission and resulted in a positive finding, indicating that Native American Sacred Lands have been recorded in the Project Site. As a result of the field survey, one historic-period cultural resource was recorded inside the Project Site: MW-001, a concrete pad associated with agriculture. Resource P-36-012351 and newly identified resource MW-001 have both been evaluated as not eligible for the National Register of Historic Places or the California Register of Historical Resources under any criteria. Due to the presence of Holocene sediments within the Project Site, there is a moderate potential for the discovery of subsurface deposits or eligible sites within the Project Site. Therefore, Mitigation Measures CR-1, CR-2, TCR-1, and TCR-2 shall be implemented to address potential impacts to cultural resources.

b) **Less than Significant.** Cumulative impacts are defined as two or more individual affects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period. The CEQA Guidelines, Section 15130 (a) and (b), states:

(a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as

is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

Air Quality

Development of the Proposed Project will be conditioned to comply with current SCAQMD rules and regulations to minimize impacts to air quality as discussed. Approval of the project does not require a zone change nor a general plan amendment and is consistent with the City General Plan land use designation. Therefore, cumulative impacts are anticipated to be less than significant.

Greenhouse Gas

Greenhouse gas (GHG) emissions are cumulative in nature, in that, no one single project can measurably contribute to climate change and its affects (global average change in temperature, rising sea levels etc.). The direct or indirect GHG impacts are therefore not evaluated on a local level, but whether or not the GHG emissions resulting from the project are cumulative; that is, they add considerably to an increase in GHGs as compared to the existing environmental setting based on: 1) an established significance threshold(s); or 2) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions.

As summarized previously, the Proposed Project's GHG emissions fall below the Tier 3 SCAQMD draft screening threshold of 3,000 metric tons of CO2 equivalent per year and the Proposed Project is in compliance with the reduction goals AB 32 and SB 32. Furthermore, all of the post-2020 reductions in GHG emissions are addressed via regulatory requirements at the State level and the Proposed Project will be required to comply with these regulations as they come into effect. Moreover, the Proposed Project would be consistent with the Project Site's land use designation of Commercial, therefore it would not conflict with the CAP. As such, the Proposed Project's incremental contribution to greenhouse gas emissions and their effects on climate change would not be cumulatively considerable.

Although cumulative impacts are always possible, the Proposed Project, by incorporating all mitigation measures outlined herein, would reduce its contribution to any such cumulative impacts to less than cumulatively considerable. Therefore, with the incorporation of mitigation measured identified in this document, the Proposed Project would result in individually limited, but not cumulatively considerable, impacts.

c) **Less the Significant**. The development of the Proposed Project would not cause adverse impacts on humans, either directly or indirectly. As is most case for most areas in southern California, the Project Site is susceptible to seismic hazards. As summarized in Section VII, the Proposed Project is not susceptible to geologic hazards. Good planning and design of the project can limit the impact of these constraints. With adherence to the City of Redlands Development Code and California Building Code, the Proposed Project is not anticipated to result in a safety hazard for people residing or working at the Project Site.

SECTION 4
REFERENCES

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California Energy Commission. https://ecdms.energy.ca.gov/Default.aspx. Accessed April 15, 2022.

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The Natelson Company, Inc. Employment Density Study. October 31, 2001.

Placeworks. San Bernardino Countywide Policy Plan Draft EIR. July 21, 2017.

San Bernardino County. Policy Plan web maps. Accessed periodically.

U.S. Census Bureau. 2019: ACS 5-Year Estimates Data Profiles.

Water Systems Consulting, Inc. and Woodard & Curran. 2020 Upper Santa Ana River Watershed Integrated Regional Urban Water Management Plan.

Project-Specific References

ECORP Consulting, Inc. Biological Technical Report – Mentone Wabash and Naples Project. June 2022.

ECORP Consulting, Inc. Cultural Resources Inventory and Evaluation Report for the Redlands Self Storage Project. June 2022.

Hicks & Hartwick, Inc. Hydrology and Hydraulics Preliminary Report. Prepared January 2022 and Updated July 2022.

Hicks & Hartwick, Inc. Preliminary Water Quality Management Plan Report. Approved: tbd.

Linscott Law & Greenspan, Engineers. Updated Traffic Circulation & VMT Impact Assessment for the Proposed Madison Capital Self Storage Project. August 9, 2022.

Lilburn Corporation. CalEEMod Outputs for GOStoreIt. July 21, 2022.

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SAN BERNARDINO COUNTY

Department of Public Works
- Flood Control
- Operations
- Solid Waste Management
- Special Districts
- Surveyor
- Transportation

Brendon Biggs, M.S., P.E.
Director
Noel Castillo, P.E.
Assistant Director

Trevor Leja
Assistant Director

August 25, 2022

Transmitted Via Email
File: 10(ENV)-4.01

CITY OF REDLANDS
Planning Division,
35 Cajon St., Suite 20
Redlands, CA 92373
ATTN: Brian Foote, -City Planner/Planning Mgr.
bfoote@cityofredlands.org

RE: CITY OF REDLANDS- GO-Store-It Self Storage Project (Conditional Use Permit No. 1168, Lot Merger No. 003, Ordinance Text Amendment No. 363, and Street Vacation No. 186)

Dear Mr. Foote:

Thank you for allowing the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. **We received this request on August 23, 2022** and pursuant to our review, we have the following comments for considerations and inclusion into public record:

Traffic Division (Shawn Johnson, Engineering Technician IV, 909-387-1869):

1. The proposed Project is located adjacent to San Bernardino County Maintained Road (Naples Ave. Road Number 586100). Any encroachments including, but not limited to access for grading, installing single residential driveway approach, adding sidewalk to existing curb & gutter, installing commercial driveway approach, installing a traffic sign, mountain area parking deck structures and any type of above ground structure that encroaches onto County Maintained Roads or right-of-way will require a permit from the Department of Public Works prior to start of construction. The necessity for permits, and any impacts associated with them, should be addressed in the IS/MND prior to adoption and certification.

We respectfully request to be included on the circulation list for all project notices, public reviews, or public hearings. In closing, I would like to thank you again for allowing the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. Should you have any questions or need additional clarification, please contact the individuals who provided the specific comment, as listed above.

Sincerely,

Nancy Sansonetti on behalf of

Anthony Pham, P.E.
Chief,
Environmental Management

MITIGATION MONITORING REPORTING PROGRAM

Project: GO-Store-It Self-Storage Project **Applicant:** Madison Capital Group, LLC

Lead Agency: City of Redlands **Date:** August 2022

Mitigation Measures No. / Implementing Action	Implementation Timing	Party Responsible for Implementation	Party Responsible for Monitoring	Date of Completion/Notes
Biological Resources				
BIO-1: Preconstruction surveys for burrowing owl shall be conducted. The surveys shall follow the methods described in the California Department of Fish & Wildlife's (CDFW) Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). Two surveys shall be conducted, with the first survey being scheduled between 30 and 14 days before initial ground disturbance (grading, grubbing, and construction), and the second survey being conducted no more than 24 hours prior to initial ground disturbance. If burrowing owls and/or suitable burrowing owl burrows are identified on the Project Site during the survey, the Project Proponent shall consult with CDFW and follow the methods listed in the CDFW's Staff Report on Burrowing Owl Mitigation (CDFG 2012) for avoidance and/or passive relocation. If burrowing owls or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified on the Project Site during the survey, these features must be completely avoided. If impacts to those features are unavoidable, then the Project Proponent must also develop an owl mitigation plan in consultation with CDFW. Mitigation methods may include passive relocation conducted outside of the owl breeding season (between September 1 and February 28). If an active owl burrow is identified, and construction is to proceed, then a qualified biologist (with two or more years of burrowing owl experience) can establish an appropriate disturbance-limit buffer around the burrow using flagging or staking. Construction activities shall not occur within any buffer zones until the burrow is deemed inactive by the qualified biologist.	First survey between 30 and 14 days before initial ground disturbance, and second survey no more than 24 hours prior to initial ground disturbance	Project Proponent; Biologist	City of Redlands	
BIO-2: If construction or other Project activities are scheduled to occur during the nesting bird season	No more than 3 days prior to initial	Project Proponent; Avian Biologist	City of Redlands	

Mitigation Measures No. / Implementing Action	Implementation Timing	Party Responsible for Implementation	Party Responsible for Monitoring	Date of Completion/Notes
(February 1 through August 31), a preconstruction nesting bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance. The nesting bird survey shall include the Project Site and adjacent areas where Project activities have the potential to affect active nests, either directly or indirectly, due to construction activity, noise, human activity, or ground disturbance. If an active nest is identified, a qualified avian biologist shall establish an appropriately sized non-disturbance buffer around the nest using flagging or staking. Construction activities shall not occur within any non-disturbance buffer zones until the nest is deemed inactive by the qualified avian biologist. If initial ground-disturbing activities are scheduled to occur during the nesting bird season, then a biological monitor shall be present during all vegetation removal activities to ensure no impacts to nesting birds occur.	ground disturbance if during nesting bird season.			
Cultural Resources				
CR-1: If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for precontact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find: If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required. •If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead federal agency, the lead CEQA agency, and applicable landowner. The	Upon discovery of cultural resources	Project Proponent; Archaeological Monitor	City of Redlands	

Mitigation Measures No. / Implementing Action	Implementation Timing	Party Responsible for Implementation	Party Responsible for Monitoring	Date of Completion/Notes
agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a Historic Property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction. •The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed within TCR-1 below, regarding any pre-contact and/or historic-era finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment. •If significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to SMBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.				
CR-2: If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease. The archaeologist shall notify the San Bernardino County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) (§ 5097.98 of	Upon discovery of human remains or funerary objects	Archaeological Monitor	City of Redlands	

Mitigation Measures No. / Implementing Action	Implementation Timing	Party Responsible for Implementation	Party Responsible for Monitoring	Date of Completion/Notes
the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.				
Geology and Soils				
GEO-1: Establish a procedure for the management of paleontological materials found on-site during a development, including the following provisions: •If materials are found on-site during grading, require that work be halted until a qualified professional evaluates the find to determine if it represents a significant paleontological resource. •If the resource is determined to be significant, the paleontologist shall supervise removal of the material and determine the most appropriate archival storage of the material. •Appropriate materials shall be prepared, catalogued, and archived at the applicant's expense and shall be retained within San Bernardino County if feasible.	Upon discovery of paleontological resources	Project Proponent; Paleontological Monitor	City of Redlands	
Tribal Cultural Resources				
TCR-1: The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed in CR-1, of any pre-contact and/or historic-era cultural resources discovered during project implementation, and be provided	Upon discovery of cultural resources	Project Proponent; Archeological Monitor represented by SMBMI	City of Redlands	

Mitigation Measures No. / Implementing Action	Implementation Timing	Party Responsible for Implementation	Party Responsible for Monitoring	Date of Completion/Notes
information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with SMBMI, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents SMBMI for the remainder of the project, should SMBMI elect to place a monitor on-site.				
TCR-2: Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to SMBMI. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI throughout the life of the project.	Upon completion of archaeological/cultural documents	Project Proponent; Archeological Monitor represented by SMBMI	City of Redlands	

RESOLUTION NO. 8402

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS ADOPTING A MITIGATED NEGATIVE DECLARATION AND THE RELATED MITIGATION MONITORING/REPORTING PROGRAM FOR CONDITIONAL USE PERMIT NO. 1168 (SELF-STORAGE PROJECT) AND STREET VACATION NO. 186 FOR A PROJECT SITE LOCATED ON THE SOUTH SIDE OF NAPLES AVENUE BETWEEN WABASH AND JASPER AVENUES, AND ORDINANCE TEXT AMENDMENT NO. 363 TO AMEND CHAPTER 18.96 OF THE REDLANDS MUNICIPAL CODE.

WHEREAS, Madison Capital Group ("Applicant"), has filed an application for Ordinance Text Amendment No. 363 to add "Self-Storage or mini-storage facilities on a project site a minimum size of five (5) acres" as a use that requires a Conditional Use Permit in the C-4 district, Street Vacation No. 186 proposing to vacate three (3) feet of roadway on Jasper Avenue, and Conditional Use Permit No. 1168 to construct a 123,456 square-foot self-storage facility consisting of 11 detached buildings that will contain 835 storage units and a 700 square foot leasing office with related site improvements including parking lot, walls and fences, landscape, and lighting on a 6.34-acre parcel. The project site is located on the south side of Naples Avenue between Wabash Avenue and Jasper Avenue in the Highway Commercial (C-4) District (APN: 0298-051-07-0000); and

WHEREAS, an Initial Study was prepared for the Project and circulated for public review for a period of thirty days beginning on August 18, 2022, through September 19, 2022; and

WHEREAS on September 23, 2022, notice of the Planning Commission's public hearing for the Project and the related Project Entitlements was published in the Redlands Daily Facts; and

WHEREAS, on October 5, 2022, the Planning Commission held a noticed public hearing at which interested persons had an opportunity to testify in support of, or in opposition to, the Project, and at which the Planning Commission considered the Project; and

WHEREAS, on October 5, 2022, the Planning Commission recommended to the City Council that the Mitigated Negative Declaration be adopted; and

WHEREAS, the Mitigated Negative Declaration and related materials for the Project that were reviewed by the City of Redlands Planning Commission in making its recommendation for approval have been forwarded to the City Council; and

WHEREAS on October 21, 2022, notice of the City Council's public hearing for the proposed Project was published in the Redlands Daily Facts by the City Clerk; and

WHEREAS, the City Council held a duly noticed public hearing on November 15, 2022, at which interested persons had the opportunity to provide verbal and written testimony on the Project and proposed Mitigated Negative Declaration.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF REDLANDS AS FOLLOWS:

SECTION 1. CEQA Compliance. As the decision-making body for the Project, the City has reviewed and considered the information contained in the Initial Study, related technical studies and analyses, public comments received, the Response to Comments, and supporting documentation. The City determines that the Initial Study and related documents contain a complete and accurate reporting of the environmental impacts and mitigation measures associated with the Project. The City finds that the Initial Study was prepared in compliance with CEQA, and that the City complied with CEQA's procedural and substantive requirements.

SECTION 2. Independent Judgment of Lead Agency. The Initial Study/Mitigated Negative Declaration for the Project, prepared by the City's environmental consultant, reflects the City's independent judgment and analysis. The City has exercised independent judgment and analysis in accordance with Public Resources Code section 21082.1(c)(3) in managing as appropriate the environmental consultant, and directing the consultant in the preparation of the Initial Study/Mitigated Negative Declaration. The City has independently reviewed and analyzed the Initial Study/Mitigated Negative Declaration and accompanying technical studies/reports, and finds that the Initial Study/Mitigated Negative Declaration reflects the independent judgment and analysis of the City of Redlands.

SECTION 3. Adoption of Mitigated Negative Declaration. The City Council of the City of Redlands finds on the basis of the whole record that there is no substantial evidence that the Project will have a significant effect on the environment, including mitigation measures and any project design features, and hereby adopts the Mitigated Negative Declaration for the Project.

SECTION 4. Adoption of Mitigation Monitoring/Reporting Program. Pursuant to Public Resources Code section 21081.6, the City of Redlands as the Lead Agency hereby adopts the Mitigation Monitoring/Reporting Program attached to the Mitigated Negative Declaration, and all mitigation measures are included as Conditions of Approval on the Project.

SECTION 5. Custodian of Records. The custodian of documents and other material which constitute the record of proceedings upon which its decision is based is the Development Services Director or designee, and all records are located in the City of Redlands Development Services Department.

SECTION 6. Effective Date. This Resolution shall take effect upon adoption.

ADOPTED, SIGNED AND APPROVED this 15th day of November, 2022.

_____

Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, do hereby certify that the foregoing Resolution was duly adopted by the City Council at a regular meeting thereof held on the 15th day of November, 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

RESOLUTION NO.
8403

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS DECLARING ITS INTENTION TO VACATE THE STREET RIGHT-OF-WAY LOCATED AT JASPER AVENUE (CITY OF REDLANDS STREET VACATION NO. 186)

WHEREAS, Madison Capital Group ("Applicant"), has filed an application for Ordinance Text Amendment No. 363 to add "Self-Storage or mini-storage facilities on a project site a minimum size of five (5) acres" as a use that requires a Conditional Use Permit in the C-4 district, Street Vacation No. 186 proposing to vacate roadway along Jasper Avenue approximately four hundred and four (404) feet in length by three (3) feet in width, and Conditional Use Permit No. 1168 to construct a 123,456 square foot storage facility consisting of 11 detached buildings that will contain 835 storage units and a 700 square foot leasing office with related site improvements including parking lot, walls and fences, landscape, and lighting on a 6.34-acre parcel. The project site is located on the south side of Naples Avenue between Wabash Avenue and Jasper Avenue in the Highway Commercial (C-4) District (APN: 0298-051-07-0000); and

WHEREAS, the City is authorized to vacate all or part of a public street pursuant to California Streets and Highway Code section 8300 et seq.; and

WHEREAS, pursuant to section 8340 of the California Streets and Highways Code, the City may, for public convenience and necessity, reserve and except public service easements from a street vacation; and

WHEREAS, at its meeting on October 5, 2022, the City's Planning Commission made its report to the City Council that the proposed street vacation will conform to the City's General Plan; and

WHEREAS, The City Council adopted Resolution No. 8402 on November 15, 2022 for the proposed project and determined a Mitigated Negative Declaration is the appropriate environmental determination for the project; and

WHEREAS, the City Council intends to vacate the excess right-of-way, as more particularly described in Exhibits "A" and "B" to this resolution;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF REDLANDS AS FOLLOWS:

Section 1. The City Council hereby declares its intention to vacate the right-of way roadway along Jasper Avenue approximately four hundred and four (404) feet in length by three (3) feet in width adjacent to APN 0298-051-07-0000, and as described in Exhibits "A" and "B,"

which are attached hereto and incorporated herein by reference.

Section 2. The City Council adopted Resolution No. 8402 on November 15, 2022 for the proposed project and determined a Mitigated Negative Declaration is the appropriate environmental determination for the project.

Section 3. The City Council will conduct a public hearing on the proposed street vacation at a regularly scheduled public meeting of the City Council on December 20, 2022, beginning at 6:00 p.m., or as soon thereafter as the matter may be heard, to be held in the City Council Chambers located at 35 Cajon Street, Suite 2, Redlands, California 92373.

Section 4. The City Clark shall give notice of the public hearing on the public hearing on the proposed vacation by:

A. Publishing notice in a newspaper of general circulation, for two successive weeks prior to the hearing; and

B. Posting notices of the proposed street vacation conspicuously at Jasper Avenue at least two weeks prior to the date set for the public hearing. The notices shall be posted no more than 300 feet apart, and at least three such notices shall be posted. The notices shall reference the adoption of this Resolution of Intention and shall state the date, time, and place of the street vacation hearing.

ADOPTED, SIGNED AND APPROVED this 15th day of November, 2022.

Paul T. Barich, Mayor

ATTEST:

Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, do hereby certify that the foregoing Resolution was duly adopted by the City Council at a regular meeting thereof held on the 15th day of November, 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

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EXHIBIT 'A'

DESCRIPTION OF PROPERTY

REAL PROPERTY LOCATED IN THE CITY OF REDLANDS, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

THAT PORTION OF JASPER AVENUE AS SHOWN ON TRACT NO. 7076, IN THE CITY OF REDLANDS, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 91 OF MAPS, PAGES 43 AND 44, OFFICIAL RECORDS OF SAID COUNTY, DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE SOUTHERLY PROLONGATION OF THE EAST LINE OF LOT "D" OF SAID TRACT NO. 7076 AND THE CENTERLINE OF FLORENCE AVENUE VACATED PER DOCUMENT RECORDED JUNE 24, 1964, IN BOOK 6176 OF DEEDS, PAGE 690, RECORDS OF SAID COUNTY;

THENCE EAST ALONG THE CENTERLINE OF SAID FLORENCE AVENUE, NORTH 89°57'23" EAST, 7.00 FEET TO THE **POINT OF BEGINNING**, SAID POINT BEING 33.00 FEET WEST, MEASURED AT RIGHT ANGLES, FROM THE CENTERLINE OF SAID JASPER AVENUE, SAID POINT ALSO BEING THE SOUTHEAST CORNER OF THAT PORTION OF JASPER AVENUE VACATED BY RESOLUTION NO. 90-294 OF THE BOARD OF SUPERVISORS OF THE COUNTY OF SAN BERNARDINO, RECORDED JUNE 27, 1990, AS INSTURMENT NO. 90-251131, OFFICIAL RECORDS OF SAID COUNTY;

THENCE NORTH ALONG EAST LINE OF SAID DOCUMENT NO. 90-251131, NORTH 00°01'57" WEST, 375.18 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHWEST AND HAVING A RADIUS OF 20.00 FEET, SAID BEGINNING OF CURVE BEING DESCRIBED IN DOCUMENT RECORDED JULY 6, 1990, AS INSTRUMENT NO. 90-264542, OFFICIAL RECORDS OF SAID COUNTY;

THENCE NORTHWESTERLY ALONG SAID CURVE AN ARC DISTANCE OF 31.41 FEET THROUGH A CENTRAL ANGLE OF 89°58'35" TO A POINT OF CUSP, THE RADIAL OF WHICH BEARS NORTH 00°00'32" WEST, SAID POINT BEING ON THE SOUTH RIGHT OF WAY OF NAPLES AVENUE AS SHOWN ON SAID TRACT NO. 7076, SAID POINT ALSO BEING 30.00 FEET SOUTH, MEASURED AT RIGHT ANGLES, FROM THE CENTERLINE OF SAID NAPLES AVENUE;

THENCE EAST ALONG THE SOUTH RIGHT OF WAY OF SAID NAPLES AVENUE, NORTH 89°59'28" EAST, 10.00 FEET;

THENCE SOUTH 43°56'25" EAST, 18.74 FEET TO A POINT THAT IS WEST 30.00', MEASURED AT RIGHT ANGLES, FROM THE CENTERLINE OF SAID JASPER AVENUE;

THENCE SOUTH ALONG A LINE THAT IS PARALLEL WITH AND 30.00 FEET WEST FROM THE CENTERLINE OF SAID JASPER AVENUE, SOUTH 00°01'57" EAST, 381.67 FEET TO A POINT ON THE CENTERLINE OF SAID FLORENCE AVENUE;

THENCE WEST ALONG THE CENTERLINE OF SAID FLORENCE AVENUE, SOUTH 89°57'23" WEST, 3.00 FEET TO THE **POINT OF BEGINNING**.

CONTAINING 1,183.58 SQ. FT. (0.027 ACRES)

PREPARED BY:

MARK S. WHITMER, L.S. 5535

DATE: 04/12/2022

LICENSED LAND SURVEYOR
MARK S. WHITMER
L.S. No. 5535
STATE OF CALIFORNIA

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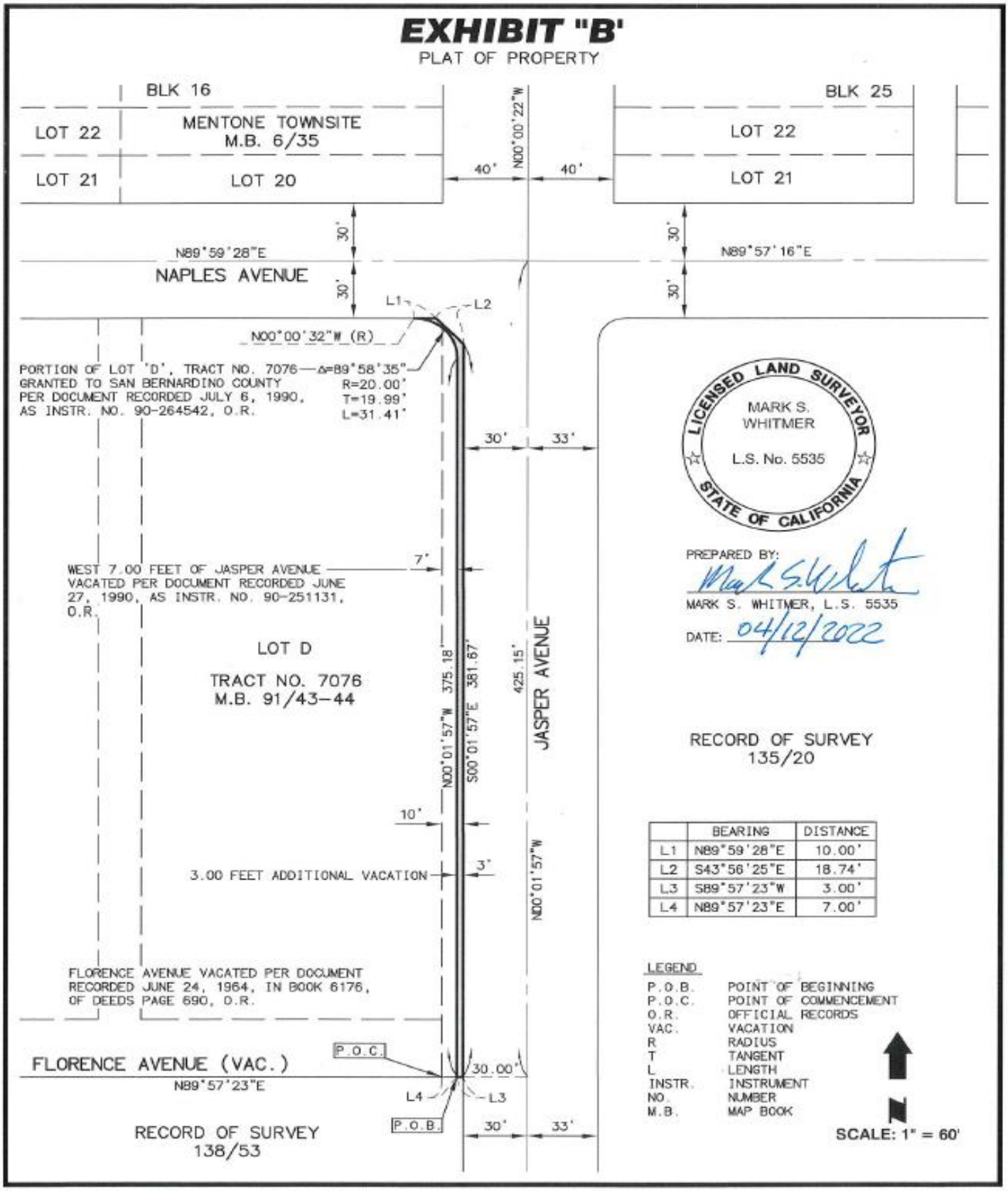
EXHIBIT "B'

PLAT OF PROPERTY



	BEARING	DISTANCE
L1	N89°59'28"E	10.00'
L2	S43°56'25"E	18.74'
L3	S89°57'23"W	3.00'
L4	N89°57'23"E	7.00'

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ORDINANCE NO. 2951

AN ORDINANCE OF THE CITY OF REDLANDS AMENDING CHAPTER 18.96 OF THE REDLANDS MUNICIPAL CODE, SECTION 18.96.070, RELATING TO THE LIST OF CONDITIONAL USES ALLOWED IN THE HIGHWAY COMMERCIAL (C-4) ZONING DISTRICT.

WHEREAS, Ordinance No. 2951 (Ordinance Text Amendment No. 363) would amend Chapter 18.96 of Title 18 (the City's "Zoning Ordinance") of the Redlands Municipal Code to permit self-storage facilities as a conditional use subject to approval of a Conditional Use Permit if located within the C-4, Highway Commercial district and located on a project site a minimum of five acres in size; and

WHEREAS, on October 5, 2022, the Planning Commission held a noticed public hearing at which interested persons had an opportunity to testify in support of, or opposition to, Ordinance Text Amendment No. 363 and at which the Planning Commission considered Ordinance Text Amendment No. 363; and

WHEREAS, approval of Ordinance No. 2951 underwent environmental review in accordance with the State Guidelines implementing the California Environmental Quality Act, an Initial Study was circulated for public review and comment, there is no evidence of any potentially significant impacts, and a Mitigated Negative Declaration is the recommended environmental determination; and

WHEREAS, following the public hearing on October 5, 2022, the Planning Commission determined that Ordinance Text Amendment No. 363 would be in conformity with the 2035 General Plan, and would be consistent with goals of the General Plan for retail/commercial land use districts; and,

WHEREAS, on October 5, 2022, the Planning Commission recommended to the City Council that proposed Ordinance No. 2951 be approved; and

WHEREAS, in accordance with Government Code section 65090, on or about October 21, 2022, the City Clerk gave notice by publication in a newspaper of general circulation of the holding of a public hearing at which Ordinance No. 2951 would be considered by City Council; and

WHEREAS, on November 15, 2022, the City Council held a noticed public hearing at which interested persons had an opportunity to testify in support of, or opposition to, Ordinance No. 2951.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF REDLANDS DOES ORDAIN AS FOLLOWS:

Section 1. Approval of Ordinance Text Amendment No. 363. Redlands Municipal Code Section 18.96.070, entitled "Conditional Uses," is hereby amended to read as follows:

"18.96.070: CONDITIONAL USES:

The following uses may be permitted in the C-4 zone subject to approval of a conditional use permit:

Uses permitted with a conditional use permit in the C-3 zone.

Uses listed in chapter 18.192 of this title.

Ambulance service.

Animal hospitals.

Drive-in stores, such as milk and food, with alcohol beverage sales.

Massage establishment in accordance with title 5, chapter 5.28 of this code.

Personal services in accordance with title 5, chapter 5.28 of this code.

Self-storage or mini-storage facilities on a project site with a minimum size of five acres.

Service stations with alcohol beverage sales; all merchandise must be displayed within the building or under canopy cover.

Tire recapping in conjunction with sales (not more than 3 molds)."

Section 2. The Mayor shall sign this ordinance and the City Clerk shall certify to the adoption of this ordinance and shall cause it, or a summary of it, to be published once in a newspaper of general circulation within the City, and thereafter, this ordinance shall take effect as provided by law.

_____

Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk, City of Redlands, hereby certify that the foregoing Ordinance was duly adopted by the City Council at the regular meeting thereof, held on the _____ day of _____, 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

RESOLUTION NO. 8404

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS APPROVING CONDITIONAL USE PERMIT NO. 1168 FOR THE DEVELOPMENT OF A SELF-STORAGE FACILITY INCLUDING ELEVEN STORAGE BUILDINGS, LEASING OFFICE, PARKING LOT, LANDSCAPE, LIGHTING, AND RELATED SITE IMPROVEMENTS, LOCATED ON THE SOUTH SIDE OF NAPLES AVENUE BETWEEN WABASH AVENUE AND JASPER AVENUE.

WHEREAS, Madison Capital Group ("Applicant"), has filed an application for Ordinance Text Amendment No. 363 to add "Self-Storage or mini-storage facilities on a project site a minimum size of five (5) acres" as a use that requires a Conditional Use Permit in the C-4 district, Street Vacation No. 186 proposing to vacate a portion of Jasper Avenue approximately four hundred and four (404) feet in length and three (3) feet in width, and Conditional Use Permit No. 1168 to construct a 123,456 square foot storage facility consisting of 11 detached buildings that will contain 835 storage units and a 700 square foot leasing office with related site improvements including parking lot, walls and fences, landscape, and lighting on a 6.34-acre parcel. The project site is located on the south side of Naples Avenue between Wabash Avenue and Jasper Avenue in the Highway Commercial (C-4) District (APN: 0298-051-07-0000); and

WHEREAS on September 23, 2022, notice of the Planning Commission's public hearing for the Project and the related Project Entitlements was published in the Redlands Daily Facts; and

WHEREAS, on October 5, 2022, the Planning Commission held a noticed public hearing at which interested persons had an opportunity to testify in support of, or in opposition to, the Project, and at which the Planning Commission considered the Project; and

WHEREAS, on October 5, 2022, the Planning Commission recommended to the City Council that Conditional Use Permit No. 1168 be approved for the Project; and

WHEREAS on October 21, 2022, notice of the City Council's public hearing for the proposed Project was published in the Redlands Daily Facts by the City Clerk; and

WHEREAS, the City Council held a duly noticed public hearing on November 15, 2022, at which interested persons had the opportunity to provide verbal and written testimony on the Project and Commission Review & Approval No. 1168.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF REDLANDS AS FOLLOWS:

SECTION 1. ENVIRONMENTAL DETERMINATON. The City Council adopted Resolution No. 8402 on November 15, 2022, for the proposed project and a Mitigated Negative Declaration is the appropriate environmental determination for the project.

SECTION 2. FINDINGS FOR APPROVAL OF CONDITIONAL USE PERMIT NO. 1168. The City Council hereby approves Conditional Use Permit No. 1168 based upon the following findings, and subject to the Conditions of Approval from the Development Services Department (Exhibit "A") and the Land Use Engineering Division (Exhibit "B") attached hereto.

1. That the proposed development will not adversely affect the applicable land use plans of the city.

The proposed self-storage facility will not adversely affect the applicable land use plans of the City. The proposed buildings were designed in compliance with the City's General Plan land use policies as well as the development standards of the Highway Commercial District. As such, the operation of the proposed self-storage facility with the approval of a Conditional Use Permit will be in conformance with the land use plans of the City.

2. That the proposed development will not be detrimental to the public health, safety and welfare.

The proposed self-storage facility will not be detrimental to the public health, safety, and welfare. Conditions of Approval have been attached to Conditional Use Permit No. 1168 to ensure that there will be no detrimental effects to public health, safety, and welfare. The self-storage facility will operate within a zoning district developed to accommodate a variety of commercial uses. The site will provide sufficient on-site parking for customers and employees. Therefore, the proposed development will not be detrimental to the public health, safety and welfare.

3. That the proposed development will comply to the maximum extent feasible with the regulations of the city's general plan, the applicable zoning district and the city's development standards.

The proposed self-storage facility complies with the regulations of the City's General Plan. With the adoption of Ordinance Text Amendment No. 363, the proposed project will be in compliance with the Highway Commercial Zoning District, in that the proposed amended language of the zoning district would allow "Self-Storage or mini-storage facilities on a project site a minimum size of five (5) acres" as a use that requires a Conditional Use Permit in the district. In addition, the site is adequate in size and shape to accommodate the proposed use.

4. That the proposed development is appropriate at the proposed location.

The proposed self-storage facility is appropriate for the subject location, as the site is adequate in size and shape to accommodate the use. The proposed use will provide a needed service to local residents and is conveniently located on a major commercial corridor. The project has been reviewed for compliance with the applicable development standards of the Highway Commercial Zoning District and the buildings were designed with an architectural theme that is consistent with the City's Architectural Review Criteria. On-site parking will also be sufficient to accommodate the proposed use.

SECTION 3. EFFECTIVE DATE. This Resolution shall become effective upon adoption.

ADOPTED, SIGNED AND APPROVED this 15th day of November, 2022.

_____

Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, hereby certify that the foregoing resolution was duly adopted by the City Council at a regular meeting thereof held on the 15th day of November, 2022.

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

EXHIBIT A
CONDITIONS OF APPROVAL
Development Services Department
Conditional Use Permit No. 1168

1. This approval is for Conditional Use Permit No. 1168 to construct a self-storage facility consisting of eleven buildings totaling 123,456 square feet with 835 storage units a 700 square foot leasing office and related site improvements including parking lot, driveways, walls and fences, landscape, basins and lighting on a 6.34-acre parcel. The project site is located south of Naples Avenue, east of Wabash Avenue and west of Jasper Avenue in the Highway Commercial (C-4) Zoning District (APN: 0298-051-07).

2. The issuance of any permits shall comply with all provisions of the Redlands Municipal Code.

3. Unless construction has commenced pursuant to the issuance of a building permit, or a time extension is granted in accordance with the Redlands Municipal Code, this approval shall expire two (2) years from the date of Planning Commission approval.

4. The issuance of any permits shall comply with all provisions of the Redlands California Fire Code currently in effect.

5. All plans submitted to the City shall reflect the Planning Commission approval and any other changes required by the Commission and/or staff. This condition applies to the site plan, landscape plans, building elevations and materials, and all other illustrations, text, or plans submitted to the City in connection with this project.

6. The applicant shall not make any modifications or changes during construction that are in conflict or contrary to the project's approved site design, grading plan, landscaping plan, or building elevations without first consulting with the Development Services Director or designee.

7. A copy of the approved Conditions of Approval shall be included on the cover page of the construction plans submitted to the Building Division.

8. No Certificate of Occupancy shall be granted until all conditions of approval have been satisfied.

9. Prior to the issuance of a grading or building permit, whichever occurs first, Street Vacation No. 186 must be approved by the City Council.

10. Pursuant to Government Code Section 66020(d), certain fees, dedications, reservations or exactions imposed by the City as a condition of approval of this project are subject to a statutory ninety (90) day protest period. Please be advised that the ninety (90) day protest period for those fees, dedications, reservations and exactions which are subject to Government Code Section 66020(a) has commenced to run on the date this project was

approved by the City.

11. The property owner and applicant and their successors and assigns, shall defend, by paying for the defense costs of the City of Redlands (for counsel retained by 7 the City), indemnify and hold harmless the City of Redlands, and its elected officials, officers, employees, and agents, from and against any and all claims, actions, and proceedings (collectively "Claims") to attack, set aside, void or annul the approval of this Conditional Use Permit by the City, or Claims brought against the City due to acts or omissions in any way connected to the applicant's project that is the subject of this permit. This indemnification shall include, but not be limited to, damages, fees, costs, liabilities, and expenses incurred in such actions or proceedings, including damages for the injury to property or persons, including death of a person, and any award of costs or attorneys' fees. In the event any such action is commenced to attack, set aside, void or annul all, or any, provisions of this permit, or is commenced for any other reason against the City for acts or omissions relating to the applicant's project, within fourteen (14) City business days following notice of such action from the City, the applicant shall file with the City a performance bond or irrevocable letter of credit, or other form of security satisfactory to the City (the "Security") in a form satisfactory to the City, and in the amount of $300,000, to ensure applicant's performance of its defense and indemnity obligations under this condition. The Security amount shall not limit the total indemnity obligation of the applicant pursuant to this condition. The failure of the applicant to provide the Security shall be deemed an express acknowledgement and agreement by the applicant that the City shall have the authority and right, without objection by the applicant, to revoke all entitlements granted for the project pursuant to this permit. The City shall have no liability to the applicant for the exercise of City's right to revoke this permit.

12. Plans submitted by Developer with building permit applications shall show on the building elevation sheets all exterior building materials and colors, including product and finish manufacturer name, color name and number, and surface finish type (such as: stucco with sand finish, plaster with smooth finish) to be used in construction.

13. All on-site utilities shall be placed underground except power poles for lines over 66 KV. Plans shall be submitted that detail the undergrounding of all on-site utilities, subject to review and approval by the Development Services Director, prior to issuance of building permits.

14. Transformer cabinets and commercial gas meters shall not be located within required setbacks and shall be screened from public view either by architectural treatment or with landscaping. Multiple electrical meters and panels shall be fully enclosed and incorporated into the overall architectural design of the building(s). Backflow preventers shall be enclosed with landscaping that will provide complete screening upon maturity. The location and method of enclosure or screening of this equipment shall be shown on the construction plans and landscape plans prior to building permit issuance. Location of said equipment shall be coordinated with appropriate utility company (e.g., Southern California Gas Company or Southern California Edison Company). The applicant shall submit plans showing details of screening subject to review and approval by the Development Services

Director, prior to issuance of building permits.

15. Ground mounted equipment shall be screened from public view on all sides subject to review and approval by the Development Services Director, prior to issuance of building permits.

16. During the plan check review process, the Developer shall provide a lighting plan that provides design details (light standards, bollards, wall mounted packs, etc.) and illumination site information within pathways, streetscapes, and open spaces proposed throughout the development. An electrical engineer shall prepare the site lighting and/or photometric plan demonstrating that adequate lighting ranges will be provided throughout the development without creating light spillover, light pollution, or conflicts with surrounding factors such as tree locations, off-site or adjacent lighting. The illumination within the parking lot shall be a minimum of 0.5-foot candle and illumination along all property lines of the project site shall not exceed 0.5-foot candle. Walkway lighting shall have a maximum height of 12 feet and all parking lot lighting shall have a maximum height of 30 feet.

17. Plans submitted for plan check shall include an exterior lighting plan, including fixture and pole designs, for review and approval by the Development Services Director or designee.

18. All lighting shall be shielded, and no light or glare shall impact the surrounding properties.

19. Prior to issuance of building permits, Developer shall demonstrate that light standards will not conflict with tree locations. Developer shall submit a plan showing both the lighting and landscape on the same sheet.

20. All landscaped areas noted on the site plan shall be permanently maintained with healthy planting material, and whenever necessary shall be replanted with suitable vegetation.

21. Landscape and Irrigation Plans shall provide water use calculations on the submitted plans, and Developer shall demonstrate compliance with the Model Water Efficient Landscape Ordinance prior to permit issuance. The plans shall be prepared by a California-licensed landscape architect.

22. The Final Landscape Plans shall incorporate the following:

    a. The landscape plan shall comply with all requirements for landscaping in pursuant to the Redlands Municipal Code.

    b. The landscape plans shall be detailed and show the specific distribution, size, and amount of each species of trees, shrubs, and groundcover;

    c. All plant material shall be sized so that the landscaping has an attractive appearance at the time of installation and a mature appearance within three (3) years;

d. An automatic irrigation system shall be utilized to irrigate the site's approved landscape design;

e. Landscaped berms, or a combination of berms, landscaping and/or wall treatments of sufficient height to substantially screen parking areas shall be provided between parking areas and right of way.

23. The landscape architect responsible for the design of the project's landscape plan shall review and certify, prior to a request by the applicant for a final occupancy inspection, that the installed landscaping meets the specifications of the approved landscape plan, except as modified in the conditions of approval.

24. Before placing or constructing any signs on the project property, Developer shall obtain a sign permit from the City. Sign locations and illumination are subject to review and approval by the Planning Division under separate permit.

25. Glazing or image reflective surfaces (specular reflectance), such as the glazing on windows, shall be limited to a maximum reflectance value of twenty five percent (25%). "Specular reflectance" means any mirror like reflection, as contrasted to diffused reflection from such surfaces as concrete or vegetation.

26. Prior to the issuance of building permits, the applicant shall submit plans detailing that roof screening is of adequate height to screen any roof-top equipment from public view on all sides, subject to review and approval by the Development Services Director. Screening of air conditioning units and other equipment on the buildings shall be incorporated into or compatible with the architectural design of the buildings. All equipment shall be screened from public view of adjacent roadways and freeways.

27. Ground mounted equipment shall be screened from public view on all sides subject to review and approval by the Development Services Director, prior to issuance of building permits.

28. Prior to issuance of a building permit, the applicant shall be required to obtain approval of a construction site safety plan by the Redlands Police Department providing adequate security measures such as lights, video cameras, vehicle transponders, locks, alarms, trained security personnel, fencing etc. The nature of the measures will depend on the specific requirements of the site and may vary with the different stages of construction. The applicant shall be responsible for the compliance of all sub-contractors working on the site.

29. The project site shall be kept in a weed and dust free condition throughout all periods of

development.

CEQA Mitigation Measures

30. BIO-1: Preconstruction surveys for burrowing owl shall be conducted. The surveys shall follow the methods described in the California Department of Fish & Wildlife's (CDFW) Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). Two surveys shall be conducted, with the first survey being scheduled between 30 and 14 days before initial ground disturbance (grading, grubbing, and construction), and the second survey being conducted no more than 24 hours prior to initial ground disturbance. If burrowing owls and/or suitable burrowing owl burrows are identified on the Project Site during the survey, the Project Proponent shall consult with CDFW and follow the methods listed in the CDFW's Staff Report on Burrowing Owl Mitigation (CDFG 2012) for avoidance and/or passive relocation. If burrowing owls or suitable burrowing owl burrows with sign (e.g., whitewash, pellets, feathers, prey remains) are identified on the Project Site during the survey, these features must be completely avoided. If impacts to those features are unavoidable, then the Project Proponent must also develop an owl mitigation plan in consultation with CDFW. Mitigation methods may include passive relocation conducted outside of the owl breeding season (between September 1 and February 28). If an active owl burrow is identified, and construction is to proceed, then a qualified biologist (with two or more years of burrowing owl experience) can establish an appropriate disturbance-limit buffer around the burrow using flagging or staking. Construction activities shall not occur within any buffer zones until the burrow is deemed inactive by the qualified biologist.

31. BIO-2: If construction or other Project activities are scheduled to occur during the nesting bird season (February 1 through August 31), a preconstruction nesting bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests will not be disturbed or destroyed. The survey shall be completed no more than three days prior to initial ground disturbance. The nesting bird survey shall include the Project Site and adjacent areas where Project activities have the potential to affect active nests, either directly or indirectly, due to construction activity, noise, human activity, or ground disturbance. If an active nest is identified, a qualified avian biologist shall establish an appropriately sized non-disturbance buffer around the nest using flagging or staking. Construction activities shall not occur within any non-disturbance buffer zones until the nest is deemed inactive by the qualified avian biologist. If initial ground-disturbing activities are scheduled to occur during the nesting bird season, then a biological monitor shall be present during all vegetation removal activities to ensure no impacts to nesting birds occur.

32. CR-1: If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for precontact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

a. If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
b. If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead federal agency, the lead CEQA agency, and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a Historic Property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.
c. The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed within TCR-1 below, regarding any pre-contact and/or historic-era finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.
d. If significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to SMBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

33. CR-2: If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease. The archaeologist shall notify the San Bernardino County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the Native American Heritage Commission (NAHC), which then will designate a Native American Most Likely Descendant (MLD) (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their

satisfaction.

34. GEO-1: Establish a procedure for the management of paleontological materials found on-site during a development, including the following provisions:
    a. If materials are found on-site during grading, require that work be halted until a qualified professional evaluates the find to determine if it represents a significant paleontological resource.
    b. If the resource is determined to be significant, the paleontologist shall supervise removal of the material and determine the most appropriate archival storage of the material.
    c. Appropriate materials shall be prepared, catalogued, and archived at the applicant's expense and shall be retained within San Bernardino County if feasible.

34. TCR-1: The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed in CR-1, of any pre-contact and/or historic-era cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with SMBMI, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents SMBMI for the remainder of the project, should SMBMI elect to place a monitor on-site.
35. TCR-2: Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to SMBMI. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI throughout the life of the project.

<u>Police Department</u>

35. Provide a Safety and Security Program including cameras.

<u>Facilities & Community Services</u>

36. A recycling plan may be required if demolition and construction activity is occurring, pursuant to RMC 13.66.020.

37. Street trees may be required. If street trees are required, the City maintains a list of acceptable trees by species, by street name, and by tree district, pursuant to RMC 12.52.050.

38. A commercial recycle bin may be required, the City maintains a standard drawing for placement and dimensions, pursuant to RMC 13.64.150.

39. Automated containers will be required in lieu of solid waste dumpster containers for office use. Automated containers shall be placed at curbside for service on scheduled day and stored on property, pursuant to RMC 13.64.220.

Building and Safety

40. Proposed project shall comply with all current building codes Title 24 Parts 1-12.

Other Departments

41. Conditions of Approval from the following City Departments/Divisions are applicable to the project, and are hereby incorporated by reference:

    a. Land Use Engineering Division (Exhibit B)

End of Conditions of Approval

EXHIBIT B
CONDITIONS OF APPROVAL
Land Use Engineering Division

[Attached]

REDLANDS DEVELOPMENT SERVICES DEPARTMENT
LAND USE ENGINEERING
DEVELOPMENT REQUIREMENTS
CONDITION USE PERMIT NO. 1168

Date of P.C. Meeting:	**October 5, 2022**
Applicant:	**Madison Capital Group**
Location:	**South Side of Naples Avenue between Wabash Avenue and Jasper Avenue**
Project Description:	**Construct 955 Self-Storage Units with a Leasing Office**

The applicant shall comply with the following engineering requirements to allow for the orderly development of the surrounding area and for public health and safety.

All requirements for development shall be consistent with requirements set forth in the General Plan; applicable sections of Redlands Municipal Code; latest edition of "Redlands Standard Specifications and Detail Drawings for Design and Construction of Public Improvements"; latest edition of American Public Works Association "Standard Plans for Public Works" and "Standard Specifications for Public Works Construction – Greenbook"; latest edition of "Redlands Water Systems Standard Specifications"; latest edition of "Redlands Sanitary Sewer Systems Standard Specifications"; and current Redlands policies and guidelines relative to development projects.

A. The following items are required prior to issuance of the GRADING PERMIT.

1. Pay plan check fee as established per resolution. The amount will be determined at plan check submittal.

2. Plans required to be submitted include:
   a. Precise Grading Plan. Grading plans shall be coordinated with the existing and proposed off-site improvements. (RMC 15.04)
   b. SWPPP/Erosion Control Plan. Erosion/Sediment Control Plan shall be submitted for review and approval. A copy of the project's Storm Water Pollution Prevention Plan (SWPPP) shall be submitted for review. SWPPP Best Management Practices (BMPs) to prevent and control discharges to the municipal separate storm sewer (drain) system shall be in effect for the entire duration of project construction to its completion and acceptance by the City. (RMC 13.54)
   c. Water Quality Management Plan. Submit final Water Quality Management Plan (WQMP) for review and approval. WQMP shall consist of post construction Best Management Practices (BMPs) prepared in accordance with the requirements and guidelines of the San Bernardino County Stormwater Program. The requirements of the WQMP shall remain in effect throughout the life of the project. (California State Order No. R8-2010-0036)

   All plans used as reference for design shall be listed on title sheet of all plans with reference numbers. All plans shall be submitted on 24" x 36" size sheets. Six (6)

copies of each are required. After final review, grading and SWPPP plans shall be submitted on 24" x 36" size, min. 4 mil, mylar sheets for City's approval.

3. Submission of plan sets shall be complete and include all required engineering designs and drawings listed in No. 2 above. All plans submitted shall be substantially complete, and no plan check queue place-holder plans will be accepted. An incomplete plan submittal will not be accepted for plan check.

4. All support documentation shall be submitted with the plans to be checked. Submission shall include:
   a. Hydrology Report and Hydrologic Calculations; (RMC 18.192.050)
   b. Geotechnical Report; (RMC 15.04)
   c. Easement Documents. (RMC 18.192.050)

5. A final WQMP that is in substantial conformance with the preliminary WQMP and in full conformance with the WQMP Guidance Document shall be submitted and approved prior to the approval of precise grading plans.

6. Cash cleanup deposit shall be submitted ($1,000.00). Deposit will be reimbursed after the work is completed and accepted by the City upon written request. (RMC 12.16.290)

7. Truck route permit is required for all construction vehicles 5 tons and over gross vehicular weight (e.g. concrete trucks) using streets other than established truck routes. (RMC 10.54)

   NOTE: Cash cleanup deposit and truck route permit submitted during the grading process could be transferred to be used during building construction or off-site improvement construction if it is within the time limit specified in the truck route permit, otherwise a new truck route permit must be issued.

8. For all development requiring coverage under the state of California General Storm Water Permit, in effect at the time of permit issuance, and whom have filed with the State Board a Notice of Intent (NOI), a copy of the Waste Discharge Identification Number (WDID) and NOI shall be submitted for review and file. Call (866) 563-3107.(RMC 13.54)

9. The Final WQMP shall also include a site trash plan detailing the installation, operation, and maintenance of a Full Capture System (FCS) for loose trash. The intent of the FCS is to capture loose trash preventing the trash from entering the site storm drains and basins. BMPs or devices used as FCS devices shall require acceptance by the City Engineer. Full Capture Systems are defined as treatment controls (either a single device or a series of devices) capable of trapping all particles 5 mm or greater. In addition, the FCS shall trap trash from the greater of:

a. A flow not less than the peak flow rate, Q, resulting from a one-year, one-hour, storm. Precipitation intensity shall be determined using the NOAA ATLAS 14 Point Precipitation Frequency Estimates web site; or
b. A flow rate equal to the on-site storm water conveyance system including pipes, channels, and swales.

B. The following items are required prior to RECORDATION OF TRACT/PARCEL MAP.

No map is required for this application.

C. The following items are required prior to issuance of the BUILDING PERMIT.

1. Pay plan check fee as established per resolution. The amount is to be determined at plan check submittal.

2. Plans required to be submitted shall include:
   a. Street Improvement;
   b. Pavement Striping Plans (including reflectorized pavement markers);
   c. Street Tree Installation – Street trees shall be provided as per the approved Street Tree List;
   d. Street Light Installation – Provide street lighting plan which show approved locations of service pedestal(s), conduits, street lights, appurtenances, and any necessary detail by Southern California Edison Company;
   e. Potable Water Main Installation; AND
   f. Sewer Main Installation.

   All plans used as reference for design shall be listed on title sheet of all plans with reference numbers. All plans shall be submitted on 24" x 36" size sheets. Three (3) copies of each are required. After final review, plans shall be submitted on 24" x 36" size, min. 4 mil, mylar sheets for City's approval.

3. Submission of plan sets shall be complete and include all required engineering designs and drawings listed in No. 2 above. All plans submitted shall be substantially complete, and no plan check queue place-holder plans will be accepted. An incomplete plan submittal will not be accepted for plan check.

4. All support documentation shall be submitted with the plans to be checked. Submission shall include:
   a. Hydrology Report and Hydrologic Calculations; (RMC 18.192.050)
   b. Geotechnical Report; (RMC 15.04)
   c. Easement Documents. (RMC 18.192.050)

5. Finalize and obtain all necessary onsite and offsite permissions, permits, easements, right-of-way, and properties in order to satisfy the conditions of approval for this project. Such items may include:

a. Encroachment Permits from County, and other agencies;

6. All off-site improvements shall be designed by owner's Civil Engineer in accordance with City Standard Specifications and Detail Drawings and Standard Specifications for Public Works Construction (Green Book) latest revision thereof. All existing utilities shall be pot-holed to determine the actual depth if no signed plan is available. Field notes will be submitted at time of submitting the plan for review and plan checking.

7. The approximate locations of existing underground utilities shall be shown on the improvement/site/grading plans. The utilities shall be plotted from record and field data. The City of Redlands and the Engineer assume no liability as to the exact location of said lines where locations are not shown.

8. Provide pad certification and compaction report to the Building and Safety Department.

9. Pay the required development impact fees per ordinance in effect at time of issuing the building permit. The exact amount will be determined based upon the review of the final building plan or project information. Development Impact Fees shall include:
   - Transportation Facilities; (RMC 3.54)
   - Fire Facilities; (RMC 3.60)
   - General Government Facilities; (RMC 3.60)
   - Police Facilities; (RMC 3.60)
   - Storm Drain Facilities; (RMC 3.56)
   - Water Capital Improvement Charge; (RMC 3.48)
   - Recycled Water Capital Improvement Charge; (RMC 3.53)
   - Water Source Acquisition Charge; (RMC 13.40)
   - Sewer Capital Improvement Charge; (RMC 3.44)
   - Solid Waste Capital Improvement Charge; (RMC 3.70) and
   - Water/Sewer Water Frontage Charges. (RMC 13.44 and 13.12.)

10. Final City approved mylars for all public improvements shall be on file with the Municipal Utilities and Engineering Department.

11. Although this project will have an on-going inspection throughout construction, a final inspection for all off-site improvements must be scheduled by developer to certify that these improvements comply with City specifications. (RMC 12.16.090)

12. Requirements for Wabash Avenue (RMC 18.192.050):

    a. Dedicate to provide for a 44 foot half street right-of-way width including a corner cutoff at the property line return to accommodate a 30 foot radius curb return and pedestrian ramp;
    b. Construct standard curb and gutter 32 feet east side of street centerline;

c. Provide full depth construction/reconstruction consistent with the City standard or alternative method of street rehabilitation as accepted by the City Engineer between the new curb and gutter to the street centerline verified through a geotechnical report;
d. Construct standard sidewalk along the entire street frontage and ramps at all curb returns. Provide street/sidewalk dedications to accommodate ramps as needed;
e. Provide street trees spaced every 40 feet avoiding sewer and water laterals. Prepare and submit a separate street tree plan for City approval;
f. Construct underwalk drain, if necessary;
g. Use traffic index of 9.0; and
h. Install commercial fire hydrants as required by the Redlands Fire Department.

13. Requirements for Naples Avenue (RMC 18.192.050) :

a. Construct standard curb and gutter 18 feet south side of street centerline;
b. Provide full depth construction/reconstruction consistent with the City standard or alternative method of street rehabilitation as accepted by the City Engineer between the new curb and gutter to the street centerline verified through a geotechnical report;
c. Construct standard sidewalk along the entire street frontage and ramps at all curb returns. Provide street/sidewalk dedications to accommodate ramps as needed;
d. Install LED ornamental streetlight(s) [LEOTEK (GCJ1-20H-MV-WW-2-GY-580-WL-PCR7) or approved equal], with the equivalent illumination of a 100 watt sodium vapor street light. Prepare and submit a separate street lighting plan for City approval. Streetlight spacing shall be determined by the City of design specifications. A minimum of two (2) lights will be required. Location of the lights will be determined at time of plan preparation. Coordinate with City staff for guidance at that time. Prepare and submit a separate street lighting plan for City approval;
e. Provide street trees spaced every 40 feet avoiding sewer and water laterals. Prepare and submit a separate street tree plan for City approval;
f. Construct underwalk drain, if necessary;
g. Use traffic index of 5.0;
h. Install a minimum 8 inch diameter potable water main including necessary valves and appurtenances;
i. Install commercial fire hydrants as required by the Redlands Fire Department; and
j. Install a minimum 8 inch diameter sewer main with manholes and appurtenances.

14. Requirements for Jasper Avenue (RMC 18.192.050) :

a.. Process a 3 foot street vacation thought the Development Services Department.

b. Construct standard curb and gutter 18 feet west side of street centerline;
c. Provide full depth construction/reconstruction consistent with the City standard or alternative method of street rehabilitation as accepted by the City Engineer between the new curb and gutter to the street centerline verified through a geotechnical report;
d. Construct standard sidewalk along the entire street frontage and ramps at all curb returns. Provide street/sidewalk dedications to accommodate ramps as needed ;
e. Provide street trees spaced every 40 feet avoiding sewer and water laterals. Prepare and submit a separate street tree plan for City approval;
f. Construct underwalk drain, if necessary;
g. Use traffic index of 5.0; and
h. Install commercial fire hydrants as required by the Redlands Fire Department.

15. Provide for adequate drainage facilities. The applicant shall provide and submit all necessary hydrology/hydraulic studies and calculations in accordance with the San Bernardino County Hydrology Manual. (RMC 192.050)

16. All off-site utilities shall be placed underground. The undergrounding shall include power poles located along the project site's street frontage(s) and may include power poles beyond the site's boundary as determined by Southern California Edison. Those power poles that are 66KV or greater will not be required to be undergrounded. Any power pole(s) that contain a street light may be required to install a standard street light, in accordance with the Municipal Utilities and Engineering Department's standards. Plans shall be submitted that detail the undergrounding of all off-site utilities, subject to review and approval by the City Engineer. (RMC 18.192.050)

17. Install reduced pressure principle backflow devices as required by City Engineer. (RMC 13.20)

18. Install onsite fire line with double detector check valve backflow devices at service connection satisfactory to the City Fire Department. (RMC 13.20)

19. Comply with the Solid Waste Recycling Access Act of 1991 (AB 1327) and install double solid waste bin enclosure(s). Submit a plan prepared by a licensed engineer showing bin enclosure(s) location on the site plan with solid waste truck turning and/or turnaround track template superimposed.

20. Submit recycling plans for site demolition/construction for review and approval in accordance with Chapter 13.66 of the Redlands Municipal Code.

21. Dedication and vacation documents shall be prepared by a licensed Land Surveyor or registered Civil Engineer (registered prior to January 1982) and must be submitted for review and approval before recordation. (California B&P Code 8761 and CCR 4411)

22. Improvement bonds must be posted for the total estimated cost of off-site improvements as follows (RMC 18.192.050B):

Performance	100% security (due prior to building permit issuance)
(Warranty)	10% security (due at acceptance of improvements)
Labor and Materials	50% security (due prior to building permit issuance)

Acceptable security forms: Surety Bond(s), Letter of Credit from a qualified bank or institution, Cash Deposits, or Set Aside Letter (savings account) in City's name subject to approval of the City Attorney and Finance Director.

21. The 10% warranty security will be retained for one year after acceptance of public improvements by the City for warranty of off-site work. (RMC 18.192.050B and 12.20.100)

22. Execute Public Improvement Agreement. (RMC 12.22.060)

D. The following items are required prior to approval of APPLICATION FOR WATER SERVICE CONNECTION and prior to WATER METER INSTALLATION.

1. Pay the Water Capital Improvement Charge; (RMC 3.48.030)

2. Pay Water Source Acquisition Charge; (RMC 13.40)

3. Pay Water Frontage Charges. (RMC 13.12)

4. Pay the Water Meter Charge. (Redlands Ordinance No. 2830)

E. The following items are required prior to issuance of the ENCROACHMENT PERMIT.

1. Cash cleanup deposit shall be submitted ($1,000.00). Deposit will be reimbursed after the work is completed and accepted by the City upon written request. (Required unless previously submitted under Sections A, B or C.) (RMC 12.16.290)

2. Truck route permit is required for all construction vehicles 5 tons and over gross vehicular weight (e.g. concrete trucks) using streets other than established truck routes. (RMC 10.54)

3. Section 4216/4217 of the Government Code requires a Dig Alert Identification Number be issued before a "Permit to Excavate" will be valid. For your Dig Alert Identification Number, call Underground Service Alert toll free, 1-800-227-2600, two (2) working days prior to conducting any excavation. (RMC 12.20.120)

4. Encroachment Permit application and two (2) sets of City approved plans must be submitted for all off-site improvements. Encroachment Permit fees shall be paid prior to issuance of Encroachment Permit. (RMC 12.16.010)

5. A California OSHA Permit Number for all work that is 5 feet deep or deeper shall be provided. Call (909)383-4321. (RMC 12.16.040)

6. A copy of soils report is required with recommendation for the final pavement structural section to be submitted prior to placing of the street pavement. The report shall include test results and boring/sampling locations.

7. A traffic control plan shall be prepared in accordance with the latest revision of CA MUTCD or W.A.T.C.H. manual, submitted and accepted by the City Engineer prior to issuance of an encroachment permit. The plan shall show all required construction signage, warning devices, road closures, detours, delineation, phasing schedules and anticipated durations of closures and detours for any work within the public right-of-way. The plans shall provide names and 24-hour phone numbers of individuals who can be contacted regarding traffic control measures.

8. Improvement bonds must be posted for the total estimated cost of off-site improvements as follows:

Performance	100% security (due prior to building permit issuance)
(Warranty)	10% security (due at acceptance of improvements)
Labor and Materials	50% security (due prior to building permit issuance)

Acceptable security forms: Surety Bond(s), Letter of Credit from a qualified bank or institution, Cash Deposits, or Set Aside Letter (savings account) in City's name subject to approval of the City Attorney and Finance Director.

9. Execute Public Improvement Agreement.

10. The 10% warranty security will be retained for one year after acceptance of public improvements by the City for warranty of off-site work.

F. The following items are required prior to issuance of CERTIFICATE OF OCCUPANCY.

1. All requirements as described in Sections A, B, C, D and E of these conditions of approval shall be met.

2. All work shall be completed to the satisfaction of the City Engineer. All as-built plans shall be delivered to the Municipal Utilities and Engineering Department for review and approval.

3. Engineer of Record shall file a Final Certification for all grading and improvements relating to the project development.

4. Owner's Licensed Land Surveyor shall reset survey points, monuments, record corners, and centerline ties that were destroyed during construction and shall file Corner Records for those points prior to completion of the project with San Bernardino County Surveyor. Copies of information shall be furnished to the Municipal Utilities and Engineering Department. [California B&P Code 8762, 8767, 8768, 8771, and 8773(b)]

5. A list of as-built infrastructure improvement quantities shall be provided in the Excel format provided by the City showing quantities for each street segment (i.e. pavement, curb and gutter, sidewalk, etc.)

6. Streets may be required to have a seal coat applied at the option of the City Engineer. Type of seal coat is to be determined by the City Engineer.

7. Resurface existing roadway as directed by the City Engineer due to utility installations and construction damage.

8. Existing striping shall be removed and replaced as necessary. New striping and pavement markings shall be installed as required by the City Engineer.

9. Owner/Developer shall provide recycling receipts as required by the recycling plan.

G. The following items are required prior to release of SECURITIES/WARRANTIES/DEPOSITS.

1. Prior to the release of the securities for the project, all improvements shall be reviewed and accepted by the City Engineer.

2. Tie sheets shall be submitted for all monuments found and/or set in the public right-of-way.

3. The release of securities/warranties/deposits must be requested in writing to the City Engineer. Allow 30 days for processing.

DONALD YOUNG, P.E., P.M.P.
One Stop Permit Center Manager

Initial

FILE: CUP 1168

City Council Meeting **K. 3.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Public Hearing to consider Ordinance No. 2946 amending Chapter 10.24 of the Redlands Municipal Code relating to the establishment of prima facie speed limits on various streets throughout the City of Redlands and determination that adoption of the ordinance is exempt from environmental review pursuant to Section 15061(b)(3) of the California Environmental Quality Act (Municipal Utilities and Engineering Director Harris)

(Mayor to declare the meeting open as a public hearing)

PROCEDURE FOR PUBLIC HEARING:

1. Mayor declares the meeting open as a public hearing.
2. Mayor calls upon Department Director for report.
3. Mayor calls for questions/comments from members of the City Council.
4. Mayor calls for comments/questions/testimony from members of the public (3 minutes per speaker).
5. Mayor calls upon City Clerk to note any written comments received.
6. Mayor closes the public hearing.
7. City Council considers the motion and votes.

MOTION(S):

If City Council determines the staff recommendation is appropriate, the following motion is provided:

Mayor requests the City Clerk to read the title of Ordinance No. 2946;

I move to waive further reading of Ordinance No. 2946 and to introduce Ordinance No. 2946, and further find that the Ordinance is exempt from environmental review pursuant to Sections 15061(b)(3) of the California Environmental Quality Act.

RECOMMENDATION:

Staff recommends that City Council adopt Ordinance No. 2946 to amend Chapter 10.24 of the Redlands Municipal Code and determine that adoption of the Ordinance is exempt from environmental review pursuant to Section 15061(b)(3) of the California Environmental Quality Act.

DISCUSSION:

The Municipal Utilities and Engineering Department (MUED) staff periodically prepares engineering and traffic surveys in accordance with California Vehicle Code (CVC) and California Manual on Uniform Traffic Control Devices (CAMUTCD) standards. The surveys are completed at seven to fourteen (7-14) year intervals and are necessary for Redlands Police Department(RPD) Officers to issue citations for speed limit violations when electronic speed measuring equipment is used. The surveys determine the 85th percentile speed of free-flowing using actual measured vehicle speeds within a street corridor. The transportation engineering industry recognizes the 85th percentile methodology for establishing speed limits as an accurate indicator of a reasonable and safe vehicle speed. This methodology is founded on the premise that a reasonable speed limit is one that conforms to the actual behavior of the majority of vehicle operators within a street corridor. Speed limits that are established based on this methodology reduce the variance in vehicle speeds. The CAMUTCD allows the City Engineer discretion to adjust the 85th percentile speed up or down by five (5) miles per hour in consideration of physical or environmental conditions that may impact vehicle operator behavior.

In accordance with the CVC, MUED staff contracted with RK Engineering Group, Inc (RK) to perform traffic surveys on various street segments throughout the City of Redlands. The recommended speed limits identified in the RK summary report titled "2021 Engineering and Traffic Survey" (2021 E&TS) was approved by the Traffic and Parking Commission on March 2, 2022 and was accepted by City Council on June 7, 2022 with adoption of Resolution No. 8348. Similar Reports were created in 2009 and 2015. Although the 2009 report recommended increasing the speed limit on Alta Vista Drive between Florida Street and Sunset Drive from 35 mph to 40 mph, City Council directed staff to retain the lower speed limit with adoption of Resolution 6914. In order to prevent legal conflicts for RPD Officers, the posted speed limit within this corridor has not been enforced since then.

The 2021 E&TS identified an 85th percentile speed of 47 mph within this segment of Alta Vista Drive, which was initially rounded down to 45 mph in accordance with the CAMUTCD. In consideration of the horizontal and vertical street geometry and after speaking with concerned residents living near the corridor, the City Engineer elected to reduce the recommended speed limit by 5

mph to 40 mph. City Council adoption of Ordinance 2946 will result in a 40 mph posted speed limit within this corridor. The City Engineer evaluated all recommendations in the 2021 E&TS and recommends two (2) additional speed limit reductions. The first of these is the segment of Barton Road between Alabama Street and Lakeside Avenue which the City Engineer recommends posting at 40 mph rather than 45 mph as recommended by the 2021 E&TS. This provides a more gradual speed limit reduction for motor vehicle operators entering Redlands from the City of Loma Linda. The City Engineer also recommends posting a 35 mph speed limit along the segment of Colton Avenue between Church Street and Grove Street due to the presence of Franklin Elementary School and the University of Redlands within the corridor. A school speed reduction zone is located near Church Street and several pedestrian crosswalks are located in and around the University of Redlands campus. In each case, the City Engineer's recommendation complies with CAMUTCD and CVC standards. The 2021 E&TS has been updated to reflect these recommendations.

Adoption of Ordinance 2946 is exempt from environmental review pursuant to Section 15061(b)(3) of the State's Guidelines implementing the California Environmental Quality Act as there is no possibility that this action will result in an impact on the environment.

ALTERNATIVES:

The City Council may deny the staff recommendation and provide alternate direction.

SUBMITTED BY:
John R. Harris, Municipal Utilities and Engineering Director

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager
Christopher R. Catren, Chief of Police
Rich Sessler, Fire Chief
Chris Boatman, Assistant City Manager
Goutam K. Dobey, City Engineer

PREPARED BY:
Johana Silva, Assistant Engineer

Fiscal Impact

Fiscal Year: FY 22/23
Appropriation Required Y/N: No
Budgeted Y/N: Yes
Account No.: 101401
Discussion:
There is no fiscal impact associated with this action. Funding for street sign replacements is included in the MUED FY 22/23 approved budget.

Attachments

A. Ordinance 2946 (Clean)
B. Ordinance 2946 (Legislative)
C. Public Notice
D. Reso 8348 (Reference only)
E. 2021 Engineering and Traffic Survey

ORDINANCE NO. 2946

AN ORDINANCE OF THE CITY OF REDLANDS AMENDING CHAPTER 10.24 OF THE REDLANDS MUNICIPAL CODE CONFIRMING PRIMA FACIA SPEED LIMITS FOR SPECIFIED CITY STREETS

WHEREAS, an Engineering and Traffic Survey, as defined by California Vehicle Code section 627, is a survey of highway and traffic conditions conducted in accordance with methods defined in the California Manual of Uniform Traffic Control Devices; and

WHEREAS, California Vehicle Code section 40802 requires an Engineering and Traffic Survey be prepared for each City street segment, every seven to fourteen years, for the use of radar or other electronic devices to enforce speed limits; and

WHEREAS, on June 7, 2022, the City Council of the City of Redlands adopted Resolution No. 8348 approving the 2021 Engineering and Traffic Survey report prepared by RK Engineering Group for various streets within the City to update speed limits.

THE CITY COUNCIL OF THE CITY OF REDLANDS DOES ORDAIN AS FOLLOWS:

Section 1. Section 10.24.030 of the Redlands Municipal Code is hereby amended as follows:

"10.24.030: PRIMA FACIE SPEED LIMITS:

It is determined upon the basis of an engineering and traffic survey that the orderly movement of vehicular traffic would be facilitated in a reasonable and safe manner by establishing enforceable speed limits under the conditions found to exist upon the following streets. It is declared that the prima facie speed limits shall be as herein set forth on these streets or parts of streets herein designated when signs are erected giving notice thereof. This section does not apply to any twenty five (25) mile per hour prima facie limit which is applicable when passing a school building or the grounds thereof or when passing a senior center or other facility primarily used by senior citizens.

Street	Segment	Speed Limit (mph)
Alabama Street	Barton Road to Park Avenue	45
Alabama Street	Park Avenue to Lugonia Avenue	35
Alabama Street	Between City limit line south of Santa Ana River and City limit line north of Santa Ana River	55
Alessandro Road	Crescent Avenue to Sunset Drive	40

Alessandro Road	Sunset Drive to Creekside Drive	40
Alessandro Road	Creekside Drive to San Timoteo Canyon Road	35
Alta Vista Drive	Florida Street to Sunset Drive	40
Barton Road	West City Limit to Terracina Boulevard	45
Barton Road	Terracina Boulevard to Alabama Street	45
Barton Road	Alabama Street to Lakeside Avenue	40
Brockton Avenue	New York Street to Texas Street	30
Brockton Avenue	Texas Street to Church Street	35
Brockton Avenue	Church Street to Judson Street	35
Brockton Avenue	Judson Street to Wabash Avenue	35
Brookside Avenue	Lakeside Avenue to Center Street	35
Brookside Avenue	Center Street to Eureka Street	35
Cajon Street	Vine Street to Fern Avenue	30
Cajon Street	Fern Avenue to Garden Street	35
California Street	Palmetto Avenue to Almond Avenue (southbound)	45
California Street	Almond Avenue to Redlands Boulevard	40
Center Street	State Street to Brookside Avenue	35
Center Street	Brookside Avenue to Cypress Avenue	35
Center Street	Cypress Avenue to Crescent Avenue	35
Center Street	Crescent Avenue to Ridge Street	35
Central Avenue	University Street to Judson Street	30
Church Street	Pioneer Avenue to Redlands Boulevard	35
Citrus Avenue	Eureka Street to Orange Street	30
Citrus Avenue	Redlands Boulevard to University Street	30
Citrus Avenue	University Street to Wabash Avenue	40
Colton Avenue	Redlands Boulevard to Church Street	40
Colton Avenue	Church Street to Grove Street	35
Colton Avenue	Grove Street to Lincoln Street	40

Colton Avenue	Dearborn Street to Wabash Avenue	45
Crescent Avenue	Ramona Drive to Serpentine Drive	35
Crestview Road	Ford Street to Buckingham Drive	30
Cypress Avenue	Terracina Boulevard to Center Street	40
Cypress Avenue	Center Street to Redlands Boulevard	40
Cypress Avenue	Redlands Boulevard to Citrus Avenue	40
Dearborn Street	5th Avenue to Colton Avenue	40
Dearborn Street	Colton Avenue to Lugonia Avenue	35
Dearborn Street	Lugonia Avenue to San Bernardino Avenue	45
Dearborn Street	San Bernardino Avenue to Sessums Drive	40
Elizabeth Street	Garden Street to Crescent Avenue	45
Fern Avenue	Redlands Boulevard to Cajon Street	35
Fern Avenue	Cajon Street to Center Street	35
Fern Avenue	Center Street to San Mateo Street	40
Fern Avenue	San Mateo Street to Terracina Boulevard	35
Fifth Avenue	Ford Street to Dearborn Street	45
Fifth Avenue	Dearborn Street to Wabash Avenue	45
Ford Street	Citrus Avenue to Fifth Avenue	40
Ford Street	Fifth Avenue to Reservoir Road	40
Ford Street	Reservoir Road to Sunset Drive	45
Ford Street	Sunset Drive to Garden Hill Drive	40
Franklin Avenue	Eucalyptus Drive to Oak Street	35
Franklin Avenue	Oak Street to Garden Street	35
Garden Street	Mariposa Drive to Cajon Street	40
Grove Street	Highland Avenue to Citrus Avenue	35
Grove Street	Citrus Avenue to Brockton Avenue	35
Highland Avenue	Ford Street to Cajon Street	45
Highland Avenue	Cajon Street to San Mateo Street	35

Highland Avenue	San Mateo Street to Serpentine Drive	30
Judson Street	Citrus Avenue to Colton Avenue	40
Judson Street	Colton Avenue to Lugonia Avenue	35
Judson Street	Lugonia Avenue to Pioneer Avenue	35
Live Oak Canyon Road	San Timoteo Canyon Road to Easterly City Boundary	45
Lugonia Avenue	1,500 feet w/o Research Avenue to California Street	50
Lugonia Avenue	California Street to Alabama Street (eastbound)	40
Lugonia Avenue	Alabama Street to Tennessee Street (eastbound)	40
Lugonia Avenue	Tennessee Street to Texas Street	40
Lugonia Avenue	Texas Street to Orange Street	40
Mariposa Drive	Wabash Avenue to Country Club Drive	35
Mariposa Drive	Country Club Drive to Garden Street	35
Mariposa Drive	Halsey Street to Dwight Street	25
Mountain View Avenue	I-10 Freeway to Central Avenue (northbound)	50
New York Street	Colton Avenue to Lugonia Avenue	40
Olive Avenue	Citrus Avenue to San Mateo Street	35
Olive Avenue	San Mateo Street to Terracina Boulevard	35
Orange Street	Lugonia Avenue to Pioneer Avenue	40
Orange Street	Pioneer Avenue to Hubbard Court	45
Orange Street	Hubbard Court to City limits	50
Orange Tree Lane	California Street to Nevada Street	35
Orange Tree Lane	Nevada Street to Alabama Street	40
Pacific Street	Crescent Avenue to Carob Street	25
Pacific Street	Carob Street to Ridge Street	25
Palm Avenue	Serpentine Drive to San Mateo Street	30
Palm Avenue	San Mateo Street to Ford Street	40
Palmetto Avenue	Nevada Street to California Street (westbound)	40

Palmetto Avenue	California Street to Marigold Avenue	40
Palo Alto Drive	Country Club Drive to Mirasol Drive	35
Palo Alto Drive	Mirasol Drive to Sunset Drive	30
Pennsylvania Avenue	Texas Street to Orange Street	35
Pennsylvania Avenue	Orange Street to Church Street	35
Pennsylvania Avenue	Church Street to University Avenue	35
Pennsylvania Avenue	University Avenue to Judson Street	35
Pioneer Avenue	Texas Street to Orange Street	35
Pioneer Avenue	Orange Street to Occidental Drive	35
Pioneer Avenue	Occidental Drive to Dearborn Street	45
Pioneer Avenue	Texas Street to I-210 Freeway	40
Redlands Boulevard	California Street to Texas Street	40
Redlands Boulevard	Texas Street to Eureka Street	35
Redlands Boulevard	Eureka Street to Citrus Avenue	30
Redlands Boulevard	Citrus Avenue to Highland Avenue	35
Redlands Boulevard	Highland Avenue to Ford Street	50
Reservoir Road	Ford Street to Wabash Avenue	50
Rossmont Drive	Garden Street to Sunset Drive	25
San Bernardino Avenue	Tennessee Street to Orange Street	45
San Bernardino Avenue	Orange Street to University Street	40
San Bernardino Avenue	University Street to Wabash Avenue	45
San Bernardino Avenue	Mountain View Avenue to California Street	50
San Mateo Street	Brookside Avenue to Fern Avenue	35
San Mateo Street	Fern Avenue to Highland Avenue	35
San Timoteo Canyon Road	Fern Avenue to Barton Road	40
Sunset Drive	Vinton Way to Alta Vista Drive	40
Sunset Drive	Alta Vista Drive to Panorama Point	30

Sunset Drive	Serpentine Road to Vinton Way	25
Sunset Drive	Panorama Point to Franklin Avenue	35
Sunnyside Avenue	Fern Avenue to Cypress Avenue	25
Sunnyside Avenue	Cypress Avenue to Smiley Heights Drive	25
Tennessee Street and San Mateo Street	Colton Avenue to Brookside Avenue	40
Terracina Boulevard	Barton Road to Olive Avenue	45
Terracina Boulevard	Olive Avenue to Cypress Avenue	35
Texas Street	Redlands Boulevard to Lugonia Avenue	35
Texas Street	Lugonia Avenue to San Bernardino Avenue	35
Texas Street	San Bernardino Avenue to Domestic Avenue	35
University Street	Cypress Avenue to Colton Avenue	35
University Street	Colton Avenue to Lugonia Avenue	35
University Street	Lugonia Avenue to San Bernardino Avenue	25
Via Vista Drive	Country Club Drive to Helena Lane	30
Wabash Avenue	Fifth Avenue to Citrus Avenue	45
Wabash Avenue	Citrus Avenue to Colton Avenue	40
Wabash Avenue	Colton Avenue to Sessums Drive	40
Wabash Avenue	Fifth Avenue to Panorama Drive	40
Wabash Avenue	Reservoir Road to Palo Alto	35

Section 2. The Mayor shall sign this ordinance and the City Clerk shall certify to the adoption of this ordinance and shall cause it, or a summary of it, to be published once in a newspaper of general circulation within the City, and thereafter, this ordinance shall take effect as provided by law.

_____
Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk, City of Redlands, hereby certify that the foregoing Ordinance was duly adopted by the City Council at the regular meeting thereof, held on the 15th day of November 2022, by the following vote:

AYES:
NOES:
ABSENT:

_____
Jeanne Donaldson, City Clerk

ORDINANCE NO. 2946

AN ORDINANCE OF THE CITY OF REDLANDS AMENDING CHAPTER 10.24 OF THE REDLANDS MUNICIPAL CODE CONFIRMING PRIMA FACIA SPEED LIMITS FOR SPECIFIED CITY STREETS

WHEREAS, an Engineering and Traffic Survey, as defined by California Vehicle Code section 627, is a survey of highway and traffic conditions conducted in accordance with methods defined in the California Manual of Uniform Traffic Control Devices; and

WHEREAS, California Vehicle Code section 40802 requires an Engineering and Traffic Survey be prepared for each City street segment, every seven to fourteen years, for the use of radar or other electronic devices to enforce speed limits; and

WHEREAS, on June 7, 2022, the City Council of the City of Redlands adopted Resolution No. 8348 approving the 2021 Engineering and Traffic Survey report prepared by RK Engineering Group for various streets within the City to update speed limits.

THE CITY COUNCIL OF THE CITY OF REDLANDS DOES ORDAIN AS FOLLOWS:

Section 1. Section 10.24.030 of the Redlands Municipal Code is hereby amended as follows:

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Alabama Street	Between City limit line south of Santa Ana River and City limit line north of Santa Ana River	55
Alessandro Road	Crescent Avenue to Sunset Drive	40

Alessandro Road	Sunset Drive to Creekside Drive	40
Alessandro Road	Creekside Drive to San Timoteo Canyon Road	35
Alta Vista Drive	Florida Street to Sunset Drive	~~35~~ 40
Barton Road	West City Limit to Terracina Boulevard	45
Barton Road	Terracina Boulevard to Alabama Street	45
Barton Road	Alabama Street to Lakeside Avenue	40
Brockton Avenue	New York Street to Texas Street	~~35~~ 30
Brockton Avenue	Texas Street to Church Street	35
Brockton Avenue	Church Street to Judson Street	35
Brockton Avenue	Judson Street to Wabash Avenue	35
Brookside Avenue	Lakeside Avenue to Center Street	35
Brookside Avenue	Center Street to Eureka Street	35
Cajon Street	Vine Street to Fern Avenue	30
Cajon Street	Fern Avenue to Garden Street	35
California Street	Palmetto Avenue to Almond Avenue (southbound)	~~40~~ 45
California Street	Almond Avenue to Redlands Boulevard	40
Center Street	State Street to Brookside Avenue	35
Center Street	Brookside Avenue to Cypress Avenue	35
Center Street	Cypress Avenue to Crescent Avenue	35
Center Street	Crescent Avenue to Ridge Street	~~30~~ 35
Central Avenue	University Street to Judson Street	~~35~~ 30
Church Street	Pioneer Avenue to Redlands Boulevard	35
Citrus Avenue	Eureka Street to Orange Street	30
Citrus Avenue	Redlands Boulevard to University Street	30
Citrus Avenue	University Street to Wabash Avenue	40
Colton Avenue	Redlands Boulevard to Church Street	40
Colton Avenue	Church Street to Grove Street	35
Colton Avenue	Grove Street to Lincoln Street	40

Colton Avenue	Dearborn Street to Wabash Avenue	45
Crescent Avenue	Ramona Drive to Serpentine Drive	35
Crestview Road	Ford Street to Buckingham Drive	30
Cypress Avenue	Terracina Boulevard to Center Street	40
Cypress Avenue	Center Street to Redlands Boulevard	40
Cypress Avenue	Redlands Boulevard to Citrus Avenue	40
Dearborn Street	5th Avenue to Colton Avenue	4~~3~~0
Dearborn Street	Colton Avenue to Lugonia Avenue	~~30~~ 35
Dearborn Street	Lugonia Avenue to San Bernardino Avenue	45~~0~~
Dearborn Street	San Bernardino Avenue to Sessums Drive	40
Elizabeth Street	Garden Street to Crescent Avenue	45~~0~~
Fern Avenue	Redlands Boulevard to Cajon Street	35
Fern Avenue	Cajon Street to Center Street	35
Fern Avenue	Center Street to San Mateo Street	40~~35~~
Fern Avenue	San Mateo Street to Terracina Boulevard	35
Fifth Avenue	Ford Street to Dearborn Street	45
Fifth Avenue	Dearborn Street to Wabash Avenue	45
Ford Street	Citrus Avenue to Fifth Avenue	40
Ford Street	Fifth Avenue to Reservoir Road	40
Ford Street	Reservoir Road to Sunset Drive	45~~0~~
Ford Street	Sunset Drive to Garden Hill Drive	40~~35~~
Franklin Avenue	Eucalyptus Drive to Oak Street	35
Franklin Avenue	Oak Street to Garden Street	35
Garden Street	Mariposa Drive to Cajon Street	40
Grove Street	Highland Avenue to Citrus Avenue	35
Grove Street	Citrus Avenue to Brockton Avenue	~~30~~ 35
Highland Avenue	Ford Street to Cajon Street	~~40~~ 45
Highland Avenue	Cajon Street to San Mateo Street	35

Highland Avenue	San Mateo Street to Serpentine Drive	30
Judson Street	Citrus Avenue to Colton Avenue	40
Judson Street	Colton Avenue to Lugonia Avenue	35
Judson Street	Lugonia Avenue to Pioneer Avenue	35
Live Oak Canyon Road	San Timoteo Canyon Road to Easterly City Boundary	45
Lugonia Avenue	1,500 feet w/o Research Avenue to California Street	50
Lugonia Avenue	California Street to Alabama Street (eastbound)	~~35~~ 40
Lugonia Avenue	Alabama Street to Tennessee Street (eastbound)	~~35~~ 40
Lugonia Avenue	Tennessee Street to Texas Street	~~35~~ 40
Lugonia Avenue	Texas Street to Orange Street	40
Mariposa Drive	Wabash Avenue to Country Club Drive	35
Mariposa Drive	Country Club Drive to Garden Street	35
Mariposa Drive	Halsey Street to Dwight Street	~~30~~ 25
Mountain View Avenue	I-10 Freeway to Central Avenue (northbound)	~~45~~ 50
New York Street	Colton Avenue to Lugonia Avenue	40
Olive Avenue	Citrus Avenue to San Mateo Street	35
Olive Avenue	San Mateo Street to Terracina Boulevard	~~40~~ 35
Orange Street	Lugonia Avenue to Pioneer Avenue	40
Orange Street	Pioneer Avenue to Hubbard Court	45
Orange Street	Hubbard Court to City limits	~~55~~ 50
Orange Tree Lane	California Street to Nevada Street	~~40~~ 35
Orange Tree Lane	Nevada Street to Alabama Street	~~35~~ 40
Pacific Street	Crescent Avenue to Carob Street	25
Pacific Street	Carob Street to Ridge Street	25
Palm Avenue	Serpentine Drive to San Mateo Street	30
Palm Avenue	San Mateo Street to Ford Street	~~35~~ 40
Palmetto Avenue	Nevada Street to California Street (westbound)	40

Palmetto Avenue	California Street to Marigold Avenue	~~35~~ 40
Palo Alto Drive	Country Club Drive to Mirasol Drive	35
Palo Alto Drive	Mirasol Drive to Sunset Drive	~~25~~ 30
Pennsylvania Avenue	Texas Street to Orange Street	35
Pennsylvania Avenue	Orange Street to Church Street	~~30~~ 35
Pennsylvania Avenue	Church Street to University Avenue	35
Pennsylvania Avenue	University Avenue to Judson Street	35
Pioneer Avenue	Texas Street to Orange Street	35
Pioneer Avenue	Orange Street to Occidental Drive	35
Pioneer Avenue	Occidental Drive to Dearborn Street	45
Pioneer Avenue	Texas Street to I-210 Freeway	~~35~~ 40
Redlands Boulevard	California Street to Texas Street	40
Redlands Boulevard	Texas Street to Eureka Street	35
Redlands Boulevard	Eureka Street to Citrus Avenue	30
Redlands Boulevard	Citrus Avenue to Highland Avenue	~~40~~ 35
Redlands Boulevard	Highland Avenue to Ford Street	50
Reservoir Road	Ford Street to Wabash Avenue	~~45~~ 50
Rossmont Drive	Garden Street to Sunset Drive	25
San Bernardino Avenue	Tennessee Street to Orange Street	~~50~~ 45
San Bernardino Avenue	Orange Street to University Street	~~45~~ 40
San Bernardino Avenue	University Street to Wabash Avenue	45
San Bernardino Avenue	Mountain View Avenue to California Street	~~45~~ 50
San Mateo Street	Brookside Avenue to Fern Avenue	35
San Mateo Street	Fern Avenue to Highland Avenue	35
San Timoteo Canyon Road	Fern Avenue to Barton Road	~~45~~ 40
Sunset Drive	Vinton Way to Alta Vista Drive	~~30~~ 40
Sunset Drive	Alta Vista Drive to Panorama Point	30

Sunset Drive	Serpentine Road to Vinton Way	~~30~~ 25
Sunset Drive	Panorama Point to Franklin Avenue	35
Sunnyside Avenue	Fern Avenue to Cypress Avenue	25
Sunnyside Avenue	Cypress Avenue to Smiley Heights Drive	25
Tennessee Street and San Mateo Street	Colton Avenue to Brookside Avenue	40
Terracina Boulevard	Barton Road to Olive Avenue	45
Terracina Boulevard	Olive Avenue to Cypress Avenue	35
Texas Street	Redlands Boulevard to Lugonia Avenue	~~40~~ 35
Texas Street	Lugonia Avenue to San Bernardino Avenue	~~40~~ 35
Texas Street	San Bernardino Avenue to Domestic Avenue	35
University Street	Cypress Avenue to Colton Avenue	35
University Street	Colton Avenue to Lugonia Avenue	35
University Street	Lugonia Avenue to San Bernardino Avenue	~~30~~ 25
Via Vista Drive	Country Club Drive to Helena Lane	30
Wabash Avenue	Fifth Avenue to Citrus Avenue	45
Wabash Avenue	Citrus Avenue to Colton Avenue	40
Wabash Avenue	Colton Avenue to Sessums Drive	~~35~~ 40
Wabash Avenue	Fifth Avenue to Panorama Drive	~~35~~ 40
Wabash Avenue	Reservoir Road to Palo Alto	~~30~~ 35

Section 2. The Mayor shall sign this ordinance and the City Clerk shall certify to the adoption of this ordinance and shall cause it, or a summary of it, to be published once in a newspaper of general circulation within the City, and thereafter, this ordinance shall take effect as provided by law.

_____
Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk, City of Redlands, hereby certify that the foregoing Ordinance was duly adopted by the City Council at the regular meeting thereof, held on the 15th day of November 2022, by the following vote:

AYES:
NOES:
ABSENT:

_____
Jeanne Donaldson, City Clerk

CITY OF REDLANDS
CITY COUNCIL
NOTICE OF PUBLIC HEARING

NOTICE is hereby given that the City Council of the City of Redlands, County of San Bernardino, State of California, will hold a public hearing to consider the following:

1. **PUBLIC HEARING** to consider **Ordinance No. 2946** amending Title 10 (Vehicles and Traffic) of the Redlands Municipal Code (RMC) and consider the adoption of the ordinance is exempt pursuant to Section 15061(b)(3) of the California Environmental Quality Act Guidelines. The proposed revisions to "Chapter 10.24 (Speed Limits)" include the following: amend RMC Section 10.24.030 – Prima Facie Speed Limits.

City of Redlands, Applicant

The general public and all persons affected by these proceedings may appear and be heard at the time of the Public Hearing. The full text of the proposed Ordinance and all materials relevant to this hearing are available for public inspection in the Municipal Utilities and Engineering Department, located at 35 Cajon Street, Ste. 15A, Redlands, California. Phone number is (909) 798-7698. Website: www.cityofredlands.org

Said public hearing will be held in the Council Chambers, Civic Center, 35 Cajon Street, Ste. 2, Redlands, California, at 6:00 P.M., or as soon thereafter as may be heard, on Tuesday, November 15, 2022.

Due to time constraints and the number of persons wishing to give oral testimony, time restrictions may be placed on oral testimony at any hearing about this project. You may wish to make your comments in writing to assure that you are able to express yourself adequately. Submit written comments to jdonaldson@cityofredlands.org.

If you challenge the ordinance described in this notice in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City Council at or prior to the public hearing.

_____

Jeanne Donaldson, City Clerk
City of Redlands, California

Display ad to be published no later than November 5, 2022.

RESOLUTION NO. 8348

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDLANDS ESTABLISHING TRAFFIC REGULATIONS PURSUANT TO TITLE 10 OF THE REDLANDS MUNICIPAL CODE AND RESCINDING RESOLUTION NO. 7583

WHEREAS, pursuant to studies made under the authority of Title 10 of the Redlands Municipal Code, and the presentation of information contained in such studies, the City Council of the City of Redlands has determined that certain traffic regulations are necessary to protect the public health, safety and welfare and should be established pursuant to Title 10 of the Redlands Municipal Code;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF REDLANDS as follows:

Section 1. This City Council determines that approval of this Resolution is exempt from review under California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15061 (b)(3) which provides that CEQA applies only to projects which have the potential for causing a significant effect on the environment. The City Council therefore finds with certainty that there is no possibility the approval of this Resolution may have a significant effect on the environment.

Section 2. Pursuant to Chapter 10.24 of the Redlands Municipal Code, a traffic engineering investigation was conducted by RK Engineering Group, Inc. to determine the speed limits for various streets in the City of Redlands, and is attached herein as Exhibit "A," titled "2021 Engineering and Traffic Survey," dated January 18, 2022. The recommended speed limits are hereby established for such streets and found appropriate to facilitate the orderly movement of traffic, and the speed limits are determined to be reasonable and safe.

Section 3. City staff is hereby directed to take all actions to undertake signage to implement this Resolution.

ADOPTED, SIGNED AND APPROVED this 7th day of June, 2022.

Paul T. Barich, Mayor

ATTEST:

Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk of the City of Redlands, hereby certify that the foregoing resolution was duly adopted by the City Council at a regular meeting thereof held on the 7th day of June, 2022, by the following vote:

AYES:	Councilmembers Tejeda, Davis, Guzman-Lowery, Gallagher
NOES:	None
ABSENT:	Mayor Barich
ABSTAIN:	None

Jeanne Donaldson, City Clerk

2021 ENGINEERING & TRAFFIC SURVEY
City of Redlands, California

Prepared for:

CITY OF REDLANDS
35 Cajon Street, Suite 15A
Redlands, California

Prepared by:

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January 18, 2022

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1.0 Introduction

This report contains the engineering and traffic speed survey for the one hundred and thirty-two (132) roadway segments in the City of Redlands (see Exhibit A). The roadway segments identified for speed zone evaluation are listed in Table 1.

For each roadway segment, information was collected on existing roadway characteristics, speed characteristics, traffic volumes, and traffic collisions. Statistical analysis of travel speeds and collisions were performed as part of this study.

Speed limits for each roadway section are recommended consistent with applicable procedures and sections in the California Vehicle Code, the California *MUTCD* (Manual on Traffic Control Devices). Applicable sections of the California *MUTCD* are contained in Appendix A.

This report contains an introduction to speed survey requirements and procedures, analysis of existing roadway conditions, speed characteristics, collision history and analysis, and recommended speed limits at each location.

2.0 Summary of Findings

2.1 Survey Methodology

1. As described in the California Vehicle Code and the California MUTCD, regarding how to set speed limits, data was collected on the existing characteristics of roadway segments.

2. All roadways were surveyed to determine existing roadway characteristics and surrounding land uses.

3. Existing travel speeds were obtained with the radar speed survey. A minimum of 100 speed observations were recorded at each survey location using calibrated and certified radar equipment. Existing speed survey statistical summary sheets are contained in Appendix B.

4. Speed observation data was statistically calculated to determine average speed, 85th percentile speed, and 10-mile per hour percentile speed.

5. Collision data was researched and tabulated for each roadway segment for consideration in the speed limit recommendations.

6. To calculate and derive collision rates, existing average daily traffic (ADT) data was collected at each study roadway segment. Detailed 2021 ADT traffic count data for the study segments are contained in Appendix C.

2.2 Speed Zone Recommendations

1. Based on a review of roadway segment survey data, speed zone recommendations were made on each of the roadway segments and are illustrated in Exhibit B. The speed zone survey information and recommended speed limits are also summarized in Table 1.

3.0 Speed Limits

This engineering and traffic survey analysis includes: (a) results of field inventories including radar samplings of speeds, (b) data analysis, and (c) recommended applicable speed limits. Under State law, speed surveys must be conducted every five years to use radar enforcement.

The California Vehicle Code is specific in its mandate for the performance of engineering and traffic surveys in regard to speed limits. In particular, Chapter 7 of the State Vehicle Code provides that "prima facie" speed limits established under Sections 22352, 22354, 22354.5, 22357, 22358, 22358.3 may not be enforced by radar unless the speed limit has been justified by an engineering and traffic survey within the last five years. All local agencies must conduct engineering and traffic surveys to provide the following:

1. Raise State dictated "prima facie" limits above 25 miles per hour;

2. Lower the otherwise permitted maximum speed of 65 miles per hour; and

3. Enforce speed limits by the use of radar equipment.

Section 22350 is the basis of all speed zone legislation in that it states, "No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent…" considering external conditions such as road conditions, weather, and other traffic. Secondly, the Vehicle Code has established certain "prima facie" speed limits (Section 22352), which may not be exceeded unless the operator of a motor vehicle can prove that it is safe to do so under the Basic Speed Law.

The recommended posted speed limits are based on CA MUTCD Section 2B.13 which states:

"When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic, except as shown in the two options below:

1. The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th-percentile speed, in compliance with CVC Sections 627 and 22358.3.

2. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used."

4.0 Data Collection

This section discusses the survey methodology for the collection of data on existing roadway characteristics, travel speed surveys, and collision experiences. Exhibit A illustrates the roadway locations inventoried. Speed study traffic conditions forms have been prepared for each survey location and are included in Appendix D.

4.1 Roadway Characteristics

Visual inspection of each roadway survey location was performed. Based on the visual survey, speed study traffic conditions forms were completed for data entries such as the number of travel lanes, type of median, existing posted speed limit, and the types of surrounding land uses. Other special conditions inventoried include notations on horizontal and vertical curves, school crosswalks, and school speed zones.

Total curb-to-curb width was also measured and recorded at each speed survey location.

The predominant land use adjacent to the roadway by travel direction was identified. The surrounding uses were identified by the predominant or significant types of uses defining the character and intensity of development along the roadway. Adjacent land uses have direct access if driveways serving the use intersect with the roadway and the land use directly fronts onto the roadway. Land uses not having direct access include those uses with rear or side yards facing the roadway with access from secondary or from parallel roadways. The number of driveways intersecting the roadway is defined as an approximate average distance between driveways along the road segment.

4.2 Travel Speed Survey Data

Radar speed surveys were conducted within the City. Principles for survey methods utilized in this engineering survey followed the procedures set out by the California *MUTCD* (Appendix A).

The *California MUTCD* sets forth the basic procedural steps in conducting an "engineering and traffic survey". This method is designed for use on all City and County through-highways, arterials, and collector streets.

Surveys were conducted during off-peak hours so that free-flow conditions would allow motorists to drive at a self-determined "safe speed". An unmarked vehicle was employed as the survey vehicle, with the radar device situated inconspicuously. The vehicle was located along a straight roadway segment, far enough away from signals, stop signs, major intersections, or roadway obstruction so that motorists were traveling at a free-flow velocity before passing the sampling vehicle.

The samples were recorded in one mile per hour increments. On two-way streets, samples in both directions were obtained. Care was also taken to include a representative proportion of trucks and buses. Speed zone statistical summary sheets for each location are provided in Appendix B of this report.

4.3 Statistical Analysis

Statistical calculations included the 85th percentile (or critical) speed, 10-mile per pace speed, percentage of vehicles in the 10-mile per hour speed and 50th percentile speed. These terms are defined as follows:

Average Speed

The average or arithmetic mean speed characteristics of the speed observations which is calculated by dividing the summation of all observed speeds by the number of observations.

85th Percentile Speed

The 85th percentile speed is the speed at or below which 85 percent of the vehicles traveled. It is the single most important measure used to determine posted speed limits.

10-Mile Per Hour Pace Speed

The 10-mile per hour pace speed is the 10-mile per hour range within which the largest number of observations fall. Typically, 70 percent of the vehicles are contained in this range, with 15% above and 15% below. A properly set speed limit will maximize the percent of vehicles in the 10-mile per hour pace speed.

4.4 Collision History

Collision data for each of the survey segments were reviewed. Collisions that occurred in the intersections were proportionally allocated to each approach leg segment of the intersection. The total number of collisions was then divided by existing traffic volumes to determine a collision rate per million vehicle miles of travel for the (MVMT) roadway segment.

The collision rates were calculated for each roadway segment. Table 2 summarizes the results of the collision history and analysis.

5.0 Speed Limit Recommendations & Conclusions

When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th percentile speed of free flowing traffic. In accordance with the California *MUTCD*:

> *Experience has shown that speed limits should be established at or below the 85th percentile speed. The speed chosen for speed zoning should be in 5-mile per hour increments and should normally be selected at a value nearest below the 85th percentile speed.*

In general, the 85th percentile speed will dictate the speed limit to be established pursuant to the reasoning that most drivers are "reasonable and prudent". Speed limit selections resulting from this survey and analysis thus follow the above guideline. Recommended speed limits are for both directions of travel.

The primary selected speed limits were then considered in relation to roadway characteristics, collision experience, and nearby development on each respective roadway segment. Some of these characteristics may warrant a deviation from the 85th percentile speed. These characteristics include:

1. Higher than average collision histories;

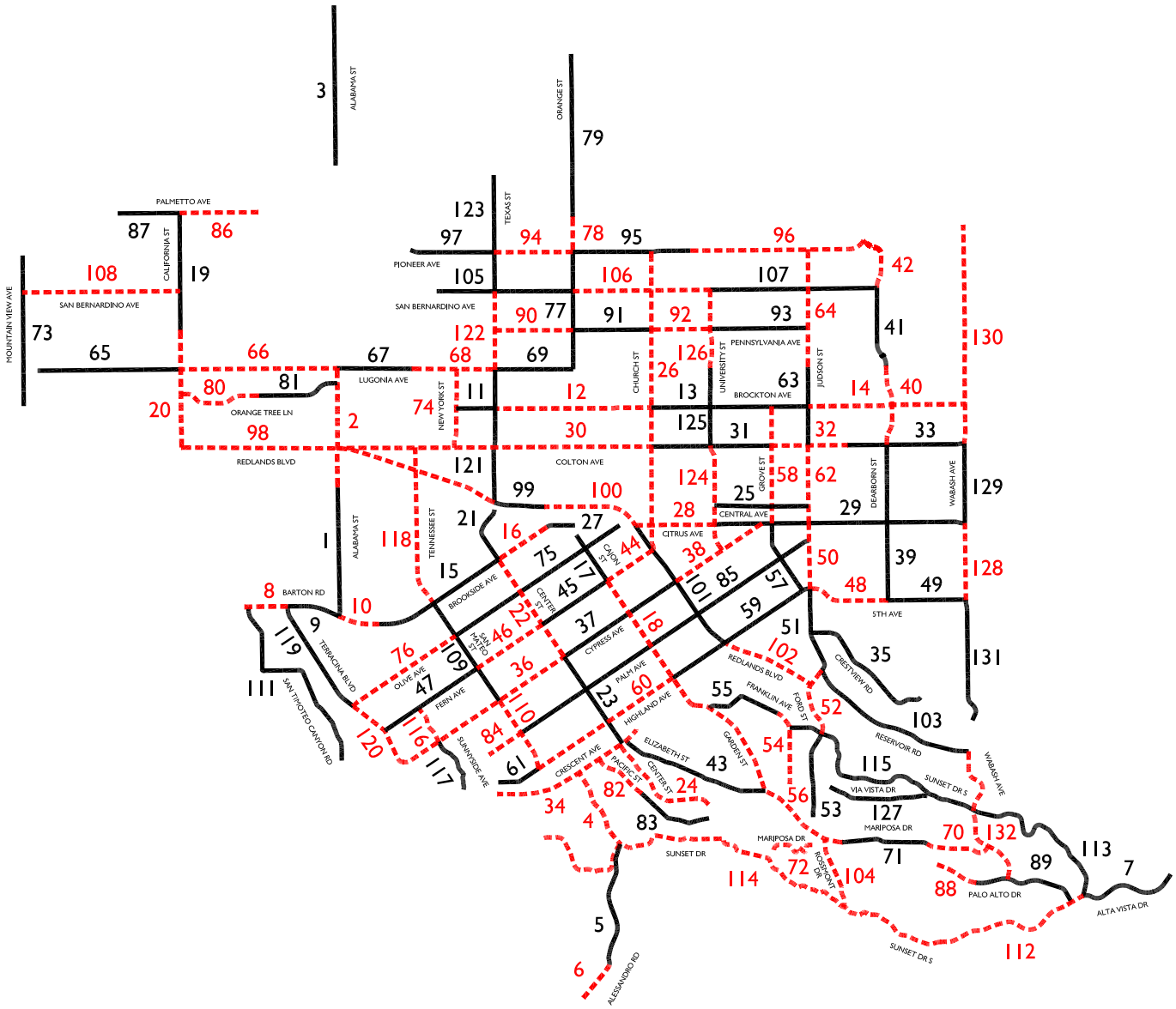
2. Other physical features of the roadway, which are not readily apparent to the driver. These hazards include cross gutters, poor sight distance, and close spacing of controlled intersections; and

3. Compatibility and continuity with speed zones of adjacent cities and/or adjacent reaches of the same street within the City.

The recommended speed limits and results of the analysis are summarized in Table 1 and graphically shown in Exhibit B.

Exhibit A

Location Map



Legend:

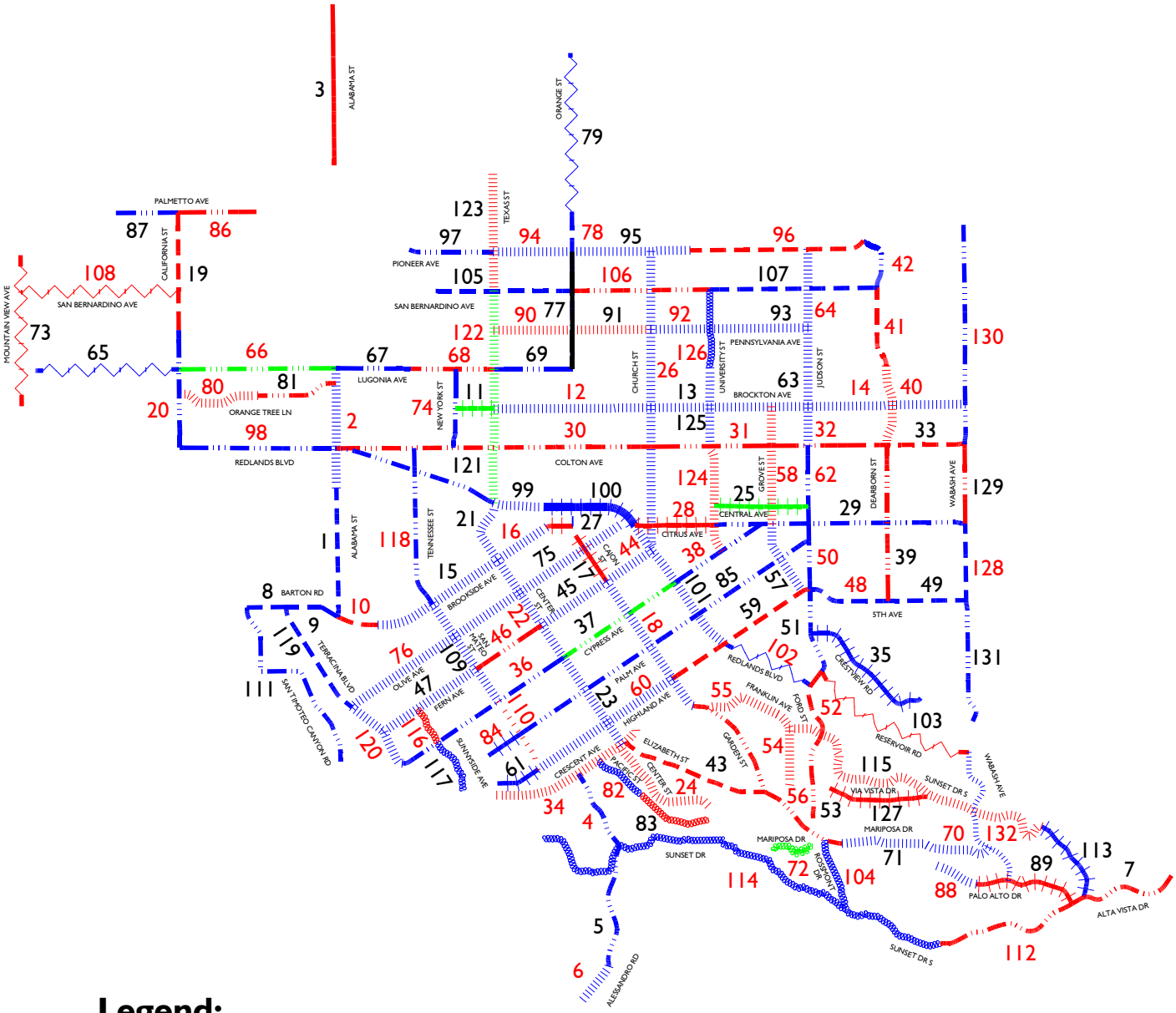
- = Odd Numbered Study Segments
- = Even Numbered Study Segments
- I = Street Segment Number

N

RK engineering group, inc.

Exhibit B

Recommended Speed Zones



Legend:

133 = Street Segment Number

= 20 MPH

= 25 MPH

= 30 MPH

= 35 MPH

= 40 MPH

= 45 MPH

= 50 MPH

= 55 MPH

= Same Speed Limit as Existing

= Increase in Existing Speed Limit

= Decrease in Existing Speed Limit

N

Table 1
City of Redlands 2021 Engineering & Traffic Survey
Speed Survey Summary

Loc. No.	Roadway Segment		Existing Posted Speed Limit	Recommended Speed Limit (MPH)	85th Percentile Speed (MPH)	50th Percentile Speed (MPH)	10 mph Pace Speed (MPH)	Percent Within 10 MPH Pace	Reason for Adjustment from 85th Percentile Speed*
1	Alabama Street	Barton Road to Park Avenue	45	**45**	47.0	41.0	35 - 44	72%	
2	Alabama Street	Park Avenue to Lugonia Avenue	35	**35**	42.0	38.0	33 - 42	84%	1
3	Alabama Street	Between city limit line south of Santa Ana River and city limit line north of Santa Ana River	50	**55**	58.0	51.0	47 - 56	64%	5, 14
4	Alessandro Road	Crescent Avenue to Sunset Drive	40	**40**	45.0	43.0	38 - 47	89%	5, 8
5	Alessandro Road	Sunset Drive to Creekside Drive	40	**40**	47.0	44.0	39 - 48	82%	8, 10
6	Alessandro Road	Creekside Drive to San Timoteo Canyon Road	35	**35**	41.0	36.0	32 - 41	77%	5, 8, 10
7	Alta Vista Drive	Florida Street to Sunset Drive	35	**40**	47.0	42.0	37 - 46	73%	5, 8, 10
8	Barton Road	West City Limit to Terracina Boulevard	45	**45**	47.0	43.0	38 - 47	75%	
9	Barton Road	Terracina Boulevard to Alabama Street	45	**45**	46.0	42.0	37 - 46	77%	
10	Barton Road	Alabama Street to Lakeside Avenue	40	**40**	46.0	41.0	38 - 47	65%	2, 5
11	Brockton Avenue	New York Street to Texas Street	35	**30**	37.0	30.0	23 - 32	62%	1
12	Brockton Avenue	Texas Street to Church Street	35	**35**	42.0	37.0	33 - 42	64%	1
13	Brockton Avenue	Church Street to Judson Street	35	**35**	41.0	36.0	32 - 41	82%	1, 5, 12
14	Brockton Avenue	Judson Street to Wabash Avenue	35	**35**	39.0	36.0	30 - 39	73%	2, 5, 14
15	Brookside Avenue	Lakeside Avenue to Center Street	35	**35**	42.0	37.0	33 - 42	80%	3, 6
16	Brookside Avenue	Center Street to Eureka Street	35	**35**	38.0	34.0	29 - 38	78%	3, 6, 14
17	Cajon Street	Vine Street to Fern Avenue	25	**30**	37.0	32.0	29 - 38	73%	2, 3, 6
18	Cajon Street	Fern Avenue to Garden Street	30 - 35	**35**	39.0	35.0	30 - 39	71%	1, 2, 3, 6
19	California Street	Palmetto Avenue to Almond Avenue (southbound)	40	**45**	48.0	41.0	34 - 43	58%	14
20	California Street	Almond Avenue to Redlands Boulevard	40	**40**	45.0	41.0	37 - 46	86%	5
21	Center Street	State Street to Brookside Avenue	35	**35**	39.0	35.0	31 - 40	72%	5, 8, 14
22	Center Street	Brookside Avenue to Cypress Avenue	35	**35**	37.0	33.0	29 - 38	80%	
23	Center Street	Cypress Avenue to Crescent Avenue	35	**35**	40.0	35.0	31 - 40	69%	2, 5
24	Center Street	Crescent Avenue to Ridge Street	30	**35**	39.0	35.0	32 - 41	72%	2, 3, 5, 8, 14
25	Central Avenue	University Street to Judson Street	35	**30**	37.0	30.0	24 - 33	65%	1, 2, 5, 6
26	Church Street	Pioneer Avenue to Redlands Boulevard	35	**35**	40.0	37.0	33 - 42	95%	2, 3, 6
27	Citrus Avenue	Eureka Street to Orange Street	25	**30**	34.0	31.0	27-36	90%	6, 14
28	Citrus Avenue	Redlands Boulevard to University Street	25	**30**	34.0	30.0	25-34	80%	1, 6, 14
29	Citrus Avenue	University Street to Wabash Avenue	40	**40**	42.0	38.0	32 - 41	78%	
30	Colton Avenue	Redlands Boulevard to Church Street	35	**40**	43.0	37.0	33 - 42	73%	1, 5, 6, 14
31	Colton Avenue	Church Street to Grove Street	30	**35**	41.0	36.0	33 - 42	83%	2, 3, 5, 9, 12
32	Colton Avenue	Grove Street to Lincoln Street	35	**40**	47.0	42.0	36 - 45	79%	2, 3, 5, 7
33	Colton Avenue	Dearborn Street to Wabash Avenue	40	**45**	48.0	42.0	39 - 48	67%	5, 14
34	Crescent Avenue	Ramona Drive to Serpentine Drive	30	**35**	40.0	36.0	31 - 40	78%	2, 3, 5, 6
35	Crestview Road	Ford Street to Buckingham Drive	30	**30**	37.0	32.0	28 - 37	58%	2, 3
36	Cypress Avenue	Terracina Boulevard to Center Street	40	**40**	43.0	38.0	35 - 44	80%	5, 12, 14
37	Cypress Avenue	Center Street to Redlands Boulevard	45	**40**	44.0	39.0	34 - 43	76%	1, 3, 5, 14
38	Cypress Avenue	Redlands Boulevard to Citrus Avenue	40	**40**	43.0	38.0	32 - 41	69%	1, 3, 5, 12, 14
39	Dearborn Street	5th Avenue to Colton Avenue	30	**40**	43.0	38.0	34 - 43	71%	3, 5, 14
40	Dearborn Street	Colton Avenue to Lugonia Avenue	30	**35**	36.0	32.0	27 - 36	78%	
41	Dearborn Street	Lugonia Avenue to San Bernardino Avenue	40	**45**	48.0	41.0	37 - 46	64%	5, 14
42	Dearborn Street	San Bernardino Avenue to Sessums Drive	40	**40**	40.0	35.0	31 - 40	63%	
43	Elizabeth Street	Garden Street to Crescent Avenue	40	**45**	49.0	43.0	39 - 48	67%	3, 5, 14
44	Fern Avenue	Redlands Boulevard to Cajon Street	35	**35**	41.0	36.0	32 - 41	79%	3, 5

Recommended speed is determined in accordance with methodologies, procedures and guidelines contained in the California Manual on Uniform Traffic Control Devices (Caltrans, 2014 Edition) and California Vehicle

*Reason for Adjustment from 85th Percentile Speed:

1. High accident rate conditions
2. Direct residential access with pedestrian activity
3. Residential area with pedestrian/bicycle activity
4. Commercial area with pedestrian activity and access
5. 10 mph pace speed
6. On-street parking with potential traffic conflicts
7. Consistency with the adjacent roadway segment speed limit
8. Roadway geometrics such as alignment changes, horizontal curves, railroad crossings, and potential obstructions limiting visibility
9. Vicinity to activity area such as park, community center, or hospital
10. Lack of sidewalks
11. Open drainage channel
12. Vicinity to school
13. Change due to existing measured 85th percentile travel speeds
14. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used. Refer to CVC Section 21400(b).
15. Local Residential Roadway - Set at 25 MPH per CVC
16. Narrow Roadway less than 25 feet wide per CVC.

X	Recommended speed limit higher than existing speed limit
X	Recommended speed limit lower than existing speed limit

Table 1

City of Redlands 2021 Engineering & Traffic Survey

Speed Survey Summary

Loc. No.	Roadway Segment		Existing Posted Speed Limit	Recommended Speed Limit (MPH)	85th Percentile Speed (MPH)	50th Percentile Speed (MPH)	10 mph Pace Speed (MPH)	Percent Within 10 MPH Pace	Reason for Adjustment from 85th Percentile Speed*
45	Fern Avenue	Cajon Street to Center Street	35	**35**	38.0	34.0	30 - 39	78%	3, 5, 14
46	Fern Avenue	Center Street to San Mateo Street	35	**40**	44.0	39.0	35 - 44	66%	3, 5, 12, 14
47	Fern Avenue	San Mateo Street to Terracina Boulevard	35	**35**	39.0	34.0	29 - 38	78%	1, 3, 5, 12, 14
48	Fifth Avenue	Ford Street to Dearborn Street	45	**45**	50.0	44.0	39 - 48	71%	5, 10
49	Fifth Avenue	Dearborn Street to Wabash Avenue	45	**45**	49.0	44.0	39 - 48	74%	3, 5, 14
50	Ford Street	Citrus Avenue to Fifth Avenue	40	**40**	47.0	41.0	36 - 45	78%	3, 5
51	Ford Street	Fifth Avenue to Reservoir Road	40	**40**	45.0	40.0	37 - 46	74%	5, 9
52	Ford Street	Reservoir Road to Sunset Drive	40	**45**	48.0	40.0	35 - 44	63%	1, 5, 14
53	Ford Street	Sunset Drive to Garden Hill Drive	35	**40**	44.0	40.0	35 - 44	74%	5, 14
54	Franklin Avenue	Eucalyptus Drive to Oak Street	30	**35**	36.0	30.0	23 - 32	66%	
55	Franklin Avenue	Oak Street to Garden Street	25	**35**	39.0	34.0	30 - 39	74%	5
56	Garden Street	Mariposa Drive to Cajon Street	35	**40**	45.0	41.0	37 - 46	81%	3, 5, 10
57	Grove Street	Highland Avenue to Citrus Avenue	35	**35**	38.0	32.0	28 - 37	72%	1, 2, 3, 5, 14
58	Grove Street	Citrus Avenue to Brockton Avenue	30	**35**	41.0	34.0	28 - 37	63%	1, 3, 5, 10, 12
59	Highland Avenue	Ford Street to Cajon Street	40	**45**	49.0	43.0	40 - 49	71%	1, 3, 5, 14
60	Highland Avenue	Cajon Street to San Mateo Street	35	**35**	41.0	37.0	32 - 41	75%	2, 3, 5, 10
61	Highland Avenue	San Mateo Street to Serpentine Drive	30	**30**	31.0	27.0	23 - 32	88%	
62	Judson Street	Citrus Avenue to Colton Avenue	40	**40**	45.0	40.0	35 - 44	80%	3, 5, 10
63	Judson Street	Colton Avenue to Lugonia Avenue	35	**35**	42.0	38.0	34 - 43	89%	2, 3
64	Judson Street	Lugonia Avenue to Pioneer Avenue	35	**35**	40.0	34.0	30 - 39	77%	10
65	Lugonia Avenue	1500' w/o Research Avenue to California Street	50	**50**	54.0	47.0	43 - 52	63%	1, 5, 6, 14
66	Lugonia Avenue	California Street to Alabama Street (eastbound)	45	**40**	47.0	42.0	37 - 46	72%	5, 10
67	Lugonia Avenue	Alabama Street to Tennessee Street (eastbound)	40	**40**	44.0	41.0	37 - 46	86%	5, 14
68	Lugonia Avenue	Tennessee Street to Texas Street	35	**40**	43.0	39.0	34 - 43	80%	5, 10, 14
69	Lugonia Avenue	Texas Street to Orange Street	40	**40**	45.0	41.0	36 - 45	80%	2, 3, 5, 10, 14
70	Mariposa Drive	Wabash Avenue to Country Club Drive	35	**35**	38.0	32.0	29 - 38	63%	2, 3, 5, 6, 10, 14
71	Mariposa Drive	Country Club Drive to Garden Street	35	**35**	40.0	37.0	32 - 41	82%	2, 3, 5, 6, 10
72	Mariposa Drive	Halsey Street to Dwight Street	30	**25**	26.0	20.0	15 - 24	61%	13
73	Mountain View Avenue	I-10 Freeway to Central Avenue (northbound)	45	**50**	54.0	49.0	45 - 54	74%	5, 10, 14
74	New York Street	Colton Avenue to Lugonia Avenue	40	**40**	45.0	40.0	35 - 44	74%	5, 10
75	Olive Avenue	Citrus Avenue to San Mateo Street	35	**35**	35.0	31.0	27 - 36	91%	
76	Olive Avenue	San Mateo Street to Terracina Boulevard	35	**35**	42.0	37.0	34 - 43	74%	1, 2, 3
77	Orange Street	Lugonia Avenue to Pioneer Avenue	40	**40**	43.0	40.0	36 - 45	88%	1, 5, 10, 14
78	Orange Street	Pioneer Avenue to Hubbard Court	45	**45**	45.0	40.0	36 - 45	82%	5, 13
79	Orange Street	Hubbard Court to City Limits	50	**50**	54.0	51.0	46 - 55	87%	10, 14
80	Orange Tree Lane	California Street to Nevada Street	30	**35**	39.0	34.0	30 - 39	76%	5, 9, 14
81	Orange Tree Lane	Nevada Street to Alabama Street	30	**40**	44.0	39.0	34 - 43	65%	5, 10, 14
82	Pacific Street	Crescent Avenue to Carob Street	25	**25**	34.0	28.0	27 - 36	68%	15
83	Pacific Street	Carob Street to Ridge Street	20	**25**	30.0	24.0	20 - 29	70%	1, 2, 3, 5, 10, 15, 16
84	Palm Avenue	Serpentine Drive to San Mateo Street	30	**30**	37.0	33.0	28 - 37	73%	1, 2, 3, 5
85	Palm Avenue	San Mateo Street to Ford Street	40	**40**	43.0	38.0	34 - 43	75%	1, 2, 3, 5, 14
86	Palmetto Avenue	Nevada Street to California Street (westbound)	30	**40**	45.0	39.0	34 - 43	61%	5
87	Palmetto Avenue	California Street to Marigold Avenue	Not Posted	**40**	44.0	37.0	35 - 44	53%	5
88	Palo Alto Drive	Country Club Drive to Mirasol Drive	35	**35**	40.0	34.0	31 - 40	59%	2, 3, 5

Recommended speed is determined in accordance with methodologies, procedures and guidelines contained in the California Manual on Uniform Traffic Control Devices (Caltrans, 2014 Edition) and California

*Reason for Adjustment from 85th Percentile Speed:

1. High accident rate conditions
2. Direct residential access with pedestrian activity
3. Residential area with pedestrian/bicycle activity
4. Commercial area with pedestrian activity and access
5. 10 mph pace speed
6. On-street parking with potential traffic conflicts
7. Consistency with the adjacent roadway segment speed limit
8. Roadway geometrics such as alignment changes, horizontal curves, railroad crossings, and potential obstructions limiting visibility
9. Vicinity to activity area such as park, community center, or hospital
10. Lack of sidewalks
11. Open drainage channel
12. Vicinity to school
13. Change due to existing measured 85th percentile travel speeds
14. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used. Refer to CVC Section 21400(b).
15. Local Residential Roadway - Set at 25 MPH per CVC
16. Narrow Roadway less than 25 feet wide per CVC.

X	Recommended speed limit higher than existing speed limit
X	Recommended speed limit lower than existing speed limit

Table 1

City of Redlands 2021 Engineering & Traffic Survey

Speed Survey Summary

Loc. No.	Roadway Segment		Existing Posted Speed Limit	Recommended Speed Limit (MPH)	85th Percentile Speed (MPH)	50th Percentile Speed (MPH)	10 mph Pace Speed (MPH)	Percent Within 10 MPH Pace	Reason for Adjustment from 85th Percentile Speed*
89	Palo Alto Drive	Mirasol Drive to Sunset Drive	25	**30**	36.0	32.0	26 - 35	74%	2, 3, 5
90	Pennsylvania Avenue	Texas Street to Orange Street	30	**35**	41.0	35.0	29 - 38	63%	1, 3, 5, 6
91	Pennsylvania Avenue	Orange Street to Church Street	30	**35**	39.0	33.0	29 - 38	71%	1, 3, 5, 6, 12, 14
92	Pennsylvania Avenue	Church Street to University Street	35	**35**	39.0	33.0	27 - 36	69%	2, 3, 5, 14
93	Pennsylvania Avenue	University Street to Judson Street	35	**35**	42.0	36.0	31 - 40	67%	2, 3, 5, 14
94	Pioneer Avenue	Texas Street to Orange Street	35	**35**	42.0	37.0	32 - 41	72%	3, 5
95	Pioneer Avenue	Orange Street to Occidental Drive	35	**35**	42.0	38.0	32 - 41	65%	2, 3, 5
96	Pioneer Avenue	Occidental Drive to Dearborn Street	35	**45**	48.0	42.0	37 - 46	58%	5, 10, 14
97	Pioneer Avenue	Texas Street to I-210 Freeway	Not Posted	**40**	47.0	41.0	36 - 45	63%	1, 5, 10, 12
98	Redlands Boulevard	California Street to Texas Street	40	**40**	46.0	41.0	38 - 47	71%	1
99	Redlands Boulevard	Texas Street to Eureka Street	35	**35**	41.0	36.0	33 - 42	74%	4, 5
100	Redlands Boulevard	Eureka Street to Citrus Avenue	30	**30**	32.0	29.0	24 - 33	86%	
101	Redlands Boulevard	Citrus Avenue to Highland Avenue	35	**35**	42.0	37.0	33 - 42	73%	10
102	Redlands Boulevard	Highland Avenue to Ford Street	50	**50**	55.0	50.0	45 - 54	69%	1, 5, 10
103	Reservoir Road	Ford Street to Wabash Avenue	45	**50**	53.0	47.0	43 - 52	65%	1, 5, 6, 14
104	Rossmont Drive	Garden Street to Sunset Drive	25	**25**	42.0	36.0	29 - 38	62%	5, 3, 10, 15, 16
105	San Bernardino Avenue	Tennessee Street to Orange Street	45	**45**	48.0	43.0	38 - 47	74%	5, 10, 14
106	San Bernardino Avenue	Orange Street to University Street	35	**40**	44.0	40.0	34 - 43	73%	3, 5, 14
107	San Bernardino Avenue	University Street to Wabash Avenue	45	**45**	46.0	42.0	37 - 46	74%	
108	San Bernardino Avenue	Mountain View Avenue to California Street	45	**50**	53.0	47.0	45 - 54	61%	5, 14
109	San Mateo Street	Brookside Avenue to Fern Avenue	35	**35**	40.0	36.0	32 - 41	82%	2, 3, 5
110	San Mateo Street	Fern Avenue to Highland Avenue	30	**35**	39.0	36.0	33 - 42	85%	2, 3, 5
111	San Timoteo Canyon Road	Fern Avenue to Barton Road	30 -45	**40**	47.0	42.0	38 - 47	70%	1, 2, 5, 10
112	Sunset Drive	Vinton Way to Alta Vista Drive	30	**40**	44.0	38.0	34 - 43	55%	1, 2, 3, 5, 10, 14
113	Sunset Drive	Alta Vista Drive to Panorama Point	25 - 30	**30**	37.0	31.0	26 - 35	66%	1, 2, 3, 5, 10
114	Sunset Drive	Serpentine Road to Vinton Way	25	**25**	31.0	27.0	24 - 33	78%	2, 3, 8, 10
115	Sunset Drive	Panorama Point to Franklin Avenue	25	**35**	39.0	33.0	30 - 39	65%	1, 2, 3, 5, 10, 14
116	Sunnyside Avenue	Fern Avenue to Cypress Avenue	20	**25**	29.0	24.0	20 - 29	81%	1, 2, 3, 5, 10, 14
117	Sunnyside Avenue	Cypress Avenue to Smiley Heights Drive	25	**25**	30.0	26.0	22 - 31	84%	1, 2, 3, 5, 14
118	Tennessee Street and San Mateo Street	Colton Avenue to Brookside Avenue	40	**40**	43.0	40.0	35 - 44	88%	1, 14
119	Terracina Boulevard	Barton Road to Olive Avenue	45	**45**	50.0	45.0	41 -50	72%	2, 3, 5
120	Terracina Boulevard	Olive Avenue to Cypress Avenue	35	**35**	41.0	35.0	30 - 39	69%	5, 6
121	Texas Street	Redlands Boulevard to Lugonia Avenue	40	**35**	42.0	38.0	33 - 42	75%	1
122	Texas Street	Lugonia Avenue to San Bernardino Avenue	40	**35**	40.0	35.0	29 - 38	75%	1
123	Texas Street	San Bernardino Avenue to Domestic Avenue	30	**35**	41.0	35.0	32 - 41	66%	1, 5, 12
124	University Street	Cypress Avenue to Colton Avenue	30	**35**	40.0	36.0	31 - 40	78%	1, 5, 12
125	University Street	Colton Avenue to Lugonia Avenue	35	**35**	40.0	36.0	31 - 40	82%	1, 5, 12
126	University Street	Lugonia Avenue to San Bernardino Avenue	25	**25**	34.0	29.0	20 - 32	68%	2, 3, 5, 14, 15
127	Via Vista Drive	Country Club Drive to Helena Lane	25	**30**	34.0	28.0	23 - 32	59%	2, 3, 5, 14
128	Wabash Avenue	Fifth Avenue to Citrus Avenue	45	**45**	51.0	44.0	42 - 51	61%	1
129	Wabash Avenue	Citrus Avenue to Colton Avenue	35	**40**	47.0	41.0	36 - 45	65%	5, 12
130	Wabash Avenue	Colton Avenue to Sessums Drive	35 - 40	**40**	45.0	41.0	36 - 45	71%	2, 5, 10
131	Wabash Avenue	Fifth Avenue to Panorama Drive	Not Posted	**40**	43.0	38.0	34 - 43	61%	1, 5, 10, 14
132	Wabash Avenue	Reservoir Road to Palo Alto Drive	Not Posted	**35**	38.0	35.0	31 - 40	85%	1, 2, 3, 5, 14

Recommended speed is determined in accordance with methodologies, procedures and guidelines contained in the California Manual on Uniform Traffic Control Devices (Caltrans, 2014 Edition) and California

*Reason for Adjustment from 85th Percentile Speed:

1. High accident rate conditions
2. Direct residential access with pedestrian activity
3. Residential area with pedestrian/bicycle activity
4. Commercial area with pedestrian activity and access
5. 10 mph pace speed
6. On-street parking with potential traffic conflicts
7. Consistency with the adjacent roadway segment speed limit
8. Roadway geometrics such as alignment changes, horizontal curves, railroad crossings, and potential obstructions limiting visibility
9. Vicinity to activity area such as park, community center, or hospital
10. Lack of sidewalks
11. Open drainage channel
12. Vicinity to school
13. Change due to existing measured 85th percentile travel speeds
14. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used. Refer to CVC Section 21400(b).
15. Local Residential Roadway - Set at 25 MPH per CVC
16. Narrow Roadway less than 25 feet wide per CVC.

X	Recommended speed limit higher than existing speed limit
X	Recommended speed limit lower than existing speed limit
X	Recommended speed limit lower than existing speed limit

Table 2

City of Redlands 2021 Engineering & Traffic Survey

Collision Rates for Study Area Roadway Segments

Loc. No.	Roadway Segment	Roadway Limit Segments	Number of Collisions	Number of Months	Link Length (Miles)	2021 ADT[1]	Collision Rate[2]
1	Alabama Street	Barton Road to Park Avenue	9	36	0.73	14,656	0.86
2	Alabama Street	Park Avenue to Lugonia Avenue	33	36	0.67	25,408	1.99
3	Alabama Street	Between city limit line south of Santa Ana River and city limit line north of Santa Ana River	1	36	0.87	21,183	0.05
4	Alessandro Road	Crescent Avenue to Sunset Drive	0	36	0.49	6,071	0.00
5	Alessandro Road	Sunset Drive to Creekside Drive	2	36	0.71	5,671	0.51
6	Alessandro Road	Creekside Drive to San Timoteo Canyon Road	0	36	0.22	4,662	0.00
7	Alta Vista Drive	Florida Street to Sunset Drive	0	36	0.55	2,583	0.00
8	Barton Road	West City Limit to Terracina Boulevard	3	36	0.16	23,545	1.41
9	Barton Road	Terracina Boulevard to Alabama Street	1	36	0.24	16,681	0.33
10	Barton Road	Alabama Street to Lakeside Avenue	6	36	0.31	12,049	1.97
11	Brockton Avenue	New York Street to Texas Street	1	36	0.20	1,288	5.73
12	Brockton Avenue	Texas Street to Church Street	31	36	0.90	5,161	6.65
13	Brockton Avenue	Church Street to Judson Street	9	36	0.91	3,426	2.89
14	Brockton Avenue	Judson Street to Wabash Avenue	2	36	0.90	2,444	0.90
15	Brookside Avenue	Lakeside Avenue to Center Street	10	36	0.65	17,581	0.90
16	Brookside Avenue	Center Street to Eureka Street	3	36	0.28	11,844	1.13
17	Cajon Street	Vine Street to Fern Avenue	3	36	0.26	9,345	1.60
18	Cajon Street	Fern Avenue to Garden Street	15	36	0.90	5,581	2.98
19	California Street	Palmetto Avenue to Almond Avenue (southbound)	3	36	0.66	6,556	0.72
20	California Street	Almond Avenue to Redlands Boulevard	14	36	0.66	21,194	1.04
21	Center Street	State Street to Brookside Avenue	2	36	0.28	7,812	1.12
22	Center Street	Brookside Avenue to Cypress Avenue	6	36	0.66	6,106	1.55
23	Center Street	Cypress Avenue to Crescent Avenue	6	36	0.62	6,967	1.45
24	Center Street	Crescent Avenue to Ridge Street	1	36	0.75	964	1.41
25	Central Avenue	University Street to Judson Street	4	36	0.60	1,221	5.73
26	Church Street	Pioneer Avenue to Redlands Boulevard	24	36	1.83	8,579	1.46
27	Citrus Avenue	Eureka Street to Orange Street	0	36	0.15	9,557	0.00
28	Citrus Avenue	Redlands Boulevard to University Street	12	36	0.50	9,078	2.85
29	Citrus Avenue	University Street to Wabash Avenue	13	36	1.50	10,491	0.80
30	Colton Avenue	Redlands Boulevard to Church Street	70	36	1.80	10,159	3.64
31	Colton Avenue	Church Street to Grove Street	4	36	0.67	7,506	0.82
32	Colton Avenue	Grove Street to Lincoln Street	3	36	0.39	7,942	1.10
33	Colton Avenue	Dearborn Street to Wabash Avenue	1	36	0.40	6,725	0.42
34	Crescent Avenue	Ramona Drive to Serpentine Drive	2	36	1.01	1,618	1.21
35	Crestview Road	Ford Street to Buckingham Drive	0	36	0.81	394	0.00
36	Cypress Avenue	Terracina Boulevard to Center Street	7	36	1.14	5,521	1.09
37	Cypress Avenue	Center Street to Redlands Boulevard	11	36	0.77	7,497	1.93
38	Cypress Avenue	Redlands Boulevard to Citrus Avenue	8	36	0.57	7,574	1.95
39	Dearborn Street	5th Avenue to Colton Avenue	0	36	0.90	4,498	0.00
40	Dearborn Street	Colton Avenue to Lugonia Avenue	0	36	0.42	3,088	0.00
41	Dearborn Street	Lugonia Avenue to San Bernardino Avenue	0	36	0.42	1,656	0.00
42	Dearborn Street	San Bernardino Avenue to Sessums Drive	1	36	0.27	1,305	3.61
43	Elizabeth Street	Garden Street to Crescent Avenue	1	36	0.87	1,427	0.81
44	Fern Avenue	Redlands Boulevard to Cajon Street	0	36	0.87	4,663	0.00

[1] ADT = Average Daily Traffic

[2] Collisions per million vehicle miles traveled

Source for number of collisions: California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS) database.

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Collision Rates for Study Area Roadway Segments

Loc. No.	Roadway Segment	Roadway Limit Segments	Number of Collisions	Number of Months	Link Length (Miles)	2021 ADT[1]	Collision Rate[2]
45	Fern Avenue	Cajon Street to Center Street	1	36	0.41	4,021	0.68
46	Fern Avenue	Center Street to San Mateo Street	0	36	0.41	3,844	0.00
47	Fern Avenue	San Mateo Street to Terracina Boulevard	4	36	0.62	3,622	1.85
48	Fifth Avenue	Ford Street to Dearborn Street	2	36	0.43	8,435	0.61
49	Fifth Avenue	Dearborn Street to Wabash Avenue	2	36	0.40	6,622	0.85
50	Ford Street	Citrus Avenue to Fifth Avenue	2	36	0.32	5,207	1.44
51	Ford Street	Fifth Avenue to Reservoir Road	5	36	0.45	7,687	1.59
52	Ford Street	Reservoir Road to Sunset Drive	21	36	0.36	8,954	7.54
53	Ford Street	Sunset Drive to Garden Hill Drive	0	36	0.45	2,882	0.00
54	Franklin Avenue	Eucalyptus Drive to Oak Street	0	36	0.38	677	0.00
55	Franklin Avenue	Oak Street to Garden Street	1	36	0.40	757	3.72
56	Garden Street	Mariposa Drive to Cajon Street	2	36	1.24	2,964	0.53
57	Grove Street	Highland Avenue to Citrus Avenue	1	36	0.39	1,132	2.57
58	Grove Street	Citrus Avenue to Brockton Avenue	3	36	0.65	2,619	1.82
59	Highland Avenue	Ford Street to Cajon Street	9	36	0.95	5,125	1.83
60	Highland Avenue	Cajon Street to San Mateo Street	10	36	0.93	6,740	1.59
61	Highland Avenue	San Mateo Street to Serpentine Drive	0	36	0.19	1,655	0.00
62	Judson Street	Citrus Avenue to Colton Avenue	1	36	0.40	6,745	0.42
63	Judson Street	Colton Avenue to Lugonia Avenue	1	36	0.41	5,714	0.48
64	Judson Street	Lugonia Avenue to Pioneer Avenue	2	36	0.66	2,968	1.05
65	Lugonia Avenue	1500' w/o Research Avenue to California Street	1	36	0.78	786	1.65
66	Lugonia Avenue	California Street to Alabama Street (eastbound)	8	36	0.90	5,655	1.57
67	Lugonia Avenue	Alabama Street to Tennessee Street (eastbound)	10	36	0.46	15,112	1.57
68	Lugonia Avenue	Tennessee Street to Texas Street	10	36	0.36	17,580	1.83
69	Lugonia Avenue	Texas Street to Orange Street	5	36	0.41	16,227	0.84
70	Mariposa Drive	Wabash Avenue to Country Club Drive	0	36	0.28	531	0.00
71	Mariposa Drive	Country Club Drive to Garden Street	1	36	0.56	2,933	0.64
72	Mariposa Drive	Halsey Street to Dwight Street	0	36	0.24	130	0.00
73	Mountain View Avenue	I-10 Freeway to Central Avenue (northbound)	8	36	1.21	11,197	0.58
74	New York Street	Colton Avenue to Lugonia Avenue	1	36	0.40	4,327	0.65
75	Olive Avenue	Citrus Avenue to San Mateo Street	5	36	1.16	3,787	1.11
76	Olive Avenue	San Mateo Street to Terracina Boulevard	2	36	0.70	4,343	0.67
77	Orange Street	Lugonia Avenue to Pioneer Avenue	21	36	0.66	12,289	2.67
78	Orange Street	Pioneer Avenue to Hubbard Court	0	36	0.18	17,212	0.00
79	Orange Street	Hubbard Court to City Limits	3	36	0.25	17,324	0.91
80	Orange Tree Lane	California Street to Nevada Street	0	36	0.43	4,079	0.00
81	Orange Tree Lane	Nevada Street to Alabama Street	1	36	0.42	3,298	0.80
82	Pacific Street	Crescent Avenue to Carob Street	0	36	0.26	332	0.00
83	Pacific Street	Carob Street to Ridge Street	2	36	0.41	217	25.20
84	Palm Avenue	Serpentine Drive to San Mateo Street	1	36	0.15	1,103	11.19
85	Palm Avenue	San Mateo Street to Ford Street	21	36	2.12	4,445	2.11
86	Palmetto Avenue	Nevada Street to California Street (westbound)	0	36	0.40	2,475	0.00
87	Palmetto Avenue	California Street to Marigold Avenue	0	36	0.30	1,484	0.00
88	Palo Alto Drive	Country Club Drive to Mirasol Drive	0	36	0.18	1,164	0.00

[1] ADT = Average Daily Traffic

[2] Collisions per million vehicle miles traveled

Source for number of collisions: California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS) database.

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89	Palo Alto Drive	Mirasol Drive to Sunset Drive	0	36	0.58	807	0.00
90	Pennsylvania Avenue	Texas Street to Orange Street	3	36	0.28	2,987	4.50
91	Pennsylvania Avenue	Orange Street to Church Street	4	36	0.40	2,702	4.17
92	Pennsylvania Avenue	Church Street to University Street	0	36	0.28	1,732	0.00
93	Pennsylvania Avenue	University Street to Judson Street	1	36	0.53	1,524	1.32
94	Pioneer Avenue	Texas Street to Orange Street	2	36	0.41	5,599	0.98
95	Pioneer Avenue	Orange Street to Occidental Drive	4	36	0.65	5,344	1.19
96	Pioneer Avenue	Occidental Drive to Dearborn Street	2	36	1.02	3,105	0.62
97	Pioneer Avenue	Texas Street to I-210 Freeway	3	36	0.45	4,109	1.78
98	Redlands Boulevard	California Street to Texas Street	59	36	1.97	9,160	3.11
99	Redlands Boulevard	Texas Street to Eureka Street	2	36	0.23	12,597	0.94
100	Redlands Boulevard	Eureka Street to Citrus Avenue	18	36	0.63	15,875	1.87
101	Redlands Boulevard	Citrus Avenue to Highland Avenue	18	36	0.95	15,253	1.23
102	Redlands Boulevard	Highland Avenue to Ford Street	1	36	0.52	13,024	0.16
103	Reservoir Road	Ford Street to Wabash Avenue	2	36	0.34	2,660	2.60
104	Rossmont Drive	Garden Street to Sunset Drive	0	36	0.36	921	0.00
105	San Bernardino Avenue	Tennessee Street to Orange Street	10	36	0.88	12,899	0.88
106	San Bernardino Avenue	Orange Street to University Street	8	36	0.78	10,147	1.02
107	San Bernardino Avenue	University Street to Wabash Avenue	6	36	1.53	7,117	0.53
108	San Bernardino Avenue	Mountain View Avenue to California Street	3	36	0.90	13,197	0.25
109	San Mateo Street	Brookside Avenue to Fern Avenue	3	36	0.40	9,701	0.87
110	San Mateo Street	Fern Avenue to Highland Avenue	5	36	0.66	7,405	1.06
111	San Timoteo Canyon Road	Fern Avenue to Barton Road	15	36	1.22	8,612	1.39
112	Sunset Drive	Vinton Way to Alta Vista Drive	3	36	0.93	867	3.70
113	Sunset Drive	Alta Vista Drive to Panorama Point	1	36	0.47	517	4.48
114	Sunset Drive	Serpentine Road to Vinton Way	2	36	3.09	725	0.84
115	Sunset Drive	Panorama Point to Franklin Avenue	13	36	1.94	1,102	5.78
116	Sunnyside Avenue	Fern Avenue to Cypress Avenue	0	36	0.16	485	0.00
117	Sunnyside Avenue	Cypress Avenue to Smiley Heights Drive	0	36	0.28	402	0.00
118	Tennessee Street and San Mateo Street	Colton Avenue to Brookside Avenue	17	36	0.93	11,194	1.62
119	Terracina Boulevard	Barton Road to Olive Avenue	3	36	0.68	9,075	0.50
120	Terracina Boulevard	Olive Avenue to Cypress Avenue	7	36	0.40	8,379	2.35
121	Texas Street	Redlands Boulevard to Lugonia Avenue	27	36	0.76	8,781	4.11
122	Texas Street	Lugonia Avenue to San Bernardino Avenue	3	36	0.40	4,724	1.79
123	Texas Street	San Bernardino Avenue to Domestic Avenue	3	36	0.41	4,134	2.00
124	University Street	Cypress Avenue to Colton Avenue	29	36	0.64	17,046	2.75
125	University Street	Colton Avenue to Lugonia Avenue	9	36	0.40	11,122	2.25
126	University Street	Lugonia Avenue to San Bernardino Avenue	1	36	0.46	1,519	1.58
127	Via Vista Drive	Country Club Drive to Helena Lane	0	36	0.64	274	0.00
128	Wabash Avenue	Fifth Avenue to Citrus Avenue	0	36	0.39	4,167	0.00
129	Wabash Avenue	Citrus Avenue to Colton Avenue	1	36	0.41	5,805	0.47
130	Wabash Avenue	Colton Avenue to Sessums Drive	2	36	1.30	8,942	0.17
131	Wabash Avenue	Fifth Avenue to Panorama Drive	1	36	0.70	672	2.18
132	Wabash Avenue	Reservoir Road to Palo Alto Drive	4	36	0.88	1,362	3.34

[1] ADT = Average Daily Traffic

[2] Collisions per million vehicle miles traveled

Source for number of collisions: California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS) database.

Appendix A

California MUTCD Sections

Section 2B.11 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series)

Standard:

01 **Yield Here To ~~(Stop Here For)~~ Pedestrians (R1-5, R1-5a, ~~R1-5b, or R1-5c~~) signs (see Figure 2B-2) shall be used if yield (stop) lines are used in advance of a marked crosswalk that crosses an uncontrolled multi-lane approach. ~~The Stop Here for Pedestrians signs shall only be used where the law specifically requires that a driver must stop for a pedestrian in a crosswalk.~~ The legend STATE LAW may be displayed at the top of the R1-5, R1-5a, ~~R1-5b, and R1-5c~~ signs, if applicable.**

Support:

01a The Stop Here for Pedestrian signs (R1-5b and R1-5c) are deleted as a stop is not required in California per CVC 21950.

Guidance:

02 *If yield (stop) lines and Yield Here To ~~(Stop Here For)~~ Pedestrians signs are used in advance of a crosswalk that crosses an uncontrolled multi-lane approach, they should be placed 20 to 50 feet in advance of the nearest crosswalk line (see Section 3B.16 and Figure 3B-17), and parking should be prohibited in the area between the yield (stop) line and the crosswalk.*

03 *Yield (stop) lines and Yield Here To ~~(Stop Here For)~~ Pedestrians signs should not be used in advance of crosswalks that cross an approach to or departure from a roundabout.*

Option:

04 Yield Here To ~~(Stop Here For)~~ Pedestrians signs may be used in advance of a crosswalk that crosses an uncontrolled multi-lane approach to indicate to road users where to yield ~~(stop)~~ even if yield (stop) lines are not used.

05 A Pedestrian Crossing (W11-2) warning sign may be placed overhead or may be post-mounted with a diagonal downward pointing arrow (W16-7P) plaque at the crosswalk location where Yield Here To ~~(Stop Here For)~~ Pedestrians signs have been installed in advance of the crosswalk.

Standard:

06 **If a W11-2 sign has been post-mounted at the crosswalk location where a Yield Here To ~~(Stop Here For)~~ Pedestrians sign is used on the approach, the Yield Here To ~~(Stop Here For)~~ Pedestrians sign shall not be placed on the same post as or block the road user's view of the W11-2 sign.**

Option:

07 An advance Pedestrian Crossing (W11-2) warning sign with an AHEAD or a distance supplemental plaque may be used in conjunction with a Yield Here To ~~(Stop Here For)~~ Pedestrians sign on the approach to the same crosswalk.

08 In-Street Pedestrian Crossing signs and Yield Here To ~~(Stop Here For)~~ Pedestrians signs may be used together at the same crosswalk.

Section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)

Option:

01 The In-Street Pedestrian Crossing (R1-6 ~~or R1-6a~~) sign (see Figure 2B-2) or the Overhead Pedestrian Crossing (R1-9 ~~or R1-9a~~) sign (see Figure 2B-2) may be used to remind road users of laws regarding right-of-way at an unsignalized pedestrian crosswalk. The legend STATE LAW may be displayed at the top of the R1-6, ~~R1-6a~~, R1-9, and ~~R1-9a~~ signs, if applicable. On the R1-6 ~~and R1-6a~~ signs, the legends ~~STOP or~~ YIELD may be used instead of the appropriate ~~STOP sign or~~ YIELD sign symbol.

02 Highway agencies may develop and apply criteria for determining the applicability of In-Street Pedestrian Crossing signs.

Support:

02a The In-Street Pedestrian crossing (R1-6a) and Overhead Pedestrian Crossing (R1-9a) signs are deleted as a stop is not required in California per CVC 21950.

Standard:

03 **If used, the In-Street Pedestrian Crossing sign shall be placed in the roadway at the crosswalk location on the center line, on a lane line, or on a median island. The In-Street Pedestrian Crossing sign shall not be post-mounted on the left-hand or right-hand side of the roadway.**

04 **If used, the Overhead Pedestrian Crossing sign shall be placed over the roadway at the crosswalk location.**

05 **An In-Street or Overhead Pedestrian Crossing sign shall not be placed in advance of the crosswalk to educate road users about the State law prior to reaching the crosswalk, nor shall it be installed as an educational display that is not near any crosswalk.**

Guidance:

06 *If an island (see Chapter 3I) is available, the In-Street Pedestrian Crossing sign, if used, should be placed on the island.*

Option:

07 If a Pedestrian Crossing (W11-2) warning sign is used in combination with an In-Street or an Overhead Pedestrian Crossing sign, the W11-2 sign with a diagonal downward pointing arrow (W16-7P) plaque may be post-mounted on the right-hand side of the roadway at the crosswalk location.

Standard:

08 **The In-Street Pedestrian Crossing sign and the Overhead Pedestrian Crossing sign shall not be used at signalized locations.**

09 **The STOP FOR legend shall only be used in States where the State law specifically requires that a driver must stop for a pedestrian in a crosswalk.**

10 **The In-Street Pedestrian Crossing sign shall have a black legend (except for the red ~~STOP or~~ YIELD sign symbols) and border on a white background, surrounded by an outer yellow or fluorescent yellow-green background area (see Figure 2B-2). The Overhead Pedestrian Crossing sign shall have a black legend and border on a yellow or fluorescent yellow-green background at the top of the sign and a black legend and border on a white background at the bottom of the sign (see Figure 2B-2).**

11 **Unless the In-Street Pedestrian Crossing sign is placed on a physical island, the sign support shall be designed to bend over and then bounce back to its normal vertical position when struck by a vehicle.**

Support:

12 The Provisions of Section 2A.18 concerning mounting height are not applicable for the In-Street Pedestrian Crossing sign.

Standard:

13 **The top of an In-Street Pedestrian Crossing sign shall be a maximum of 4 feet above the pavement surface. The top of an In-Street Pedestrian Crossing sign placed in an island shall be a maximum of 4 feet above the island surface.**

Option:

14 The In-Street Pedestrian Crossing sign may be used ~~seasonably~~ seasonally to prevent damage in winter because of plowing operations, and may be removed at night if the pedestrian activity at night is minimal.

15 In-Street Pedestrian Crossing signs, Overhead Pedestrian Crossing signs, and Yield Here To ~~(Stop Here For)~~ Pedestrians signs may be used together at the same crosswalk.

Section 2B.13 Speed Limit Sign (R2-1)

Support:

00 The setting of speed limits can be controversial and requires a rational and defensible determination to maintain public confidence. Speed limits are normally set near the 85th-percentile speed that statistically represents one standard deviation above the average speed and establishes the upper limit of what is considered reasonable and prudent. As with most laws, speed limits need to depend on the voluntary compliance of the greater majority of motorists. Speed limits cannot be set arbitrarily low, as this would create violators of the majority of drivers and would not command the respect of the public.

Standard:

01 **Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering** and traffic survey (E&TS) **~~study~~ that has been performed in accordance with traffic engineering practices. The engineering study shall include an analysis of the current speed distribution of free-flowing vehicles.**

02 **The Speed Limit (R2-1) sign (see Figure 2B-3) shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency based on the engineering study. The speed limits displayed shall be in multiples of 5 mph.**

03 **Speed Limit (R2-1) signs, indicating speed limits for which posting is required by law, shall be located at the points of change from one speed limit to another.**

04 **At the downstream end of the section to which a speed limit applies, a Speed Limit sign showing the next speed limit shall be installed. Additional Speed Limit signs shall be installed beyond major intersections and at other locations where it is necessary to remind road users of the speed limit that is applicable.**

05 **Speed Limit signs indicating the statutory speed limits shall be installed at entrances to the State and, where appropriate, at jurisdictional boundaries in urban areas.**

Support:

06 In general, the maximum speed limits applicable to rural and urban roads are established:

A. Statutorily – a maximum speed limit applicable to a particular class of road, such as freeways or city streets, that is established by State law; or

B. As altered speed zones – based on engineering studies.

07 State statutory limits might restrict the maximum speed limit that can be established on a particular road, notwithstanding what an engineering study might indicate.

Option:

08 ~~If a jurisdiction has a policy of installing Speed Limit signs in accordance with statutory requirements only on the streets that enter a city, neighborhood, or residential area to indicate the speed limit that is applicable to the entire city, neighborhood, or residential area unless otherwise posted, a CITYWIDE (R2-5aP), NEIGHBORHOOD (R2-5bP), or RESIDENTIAL (R2-5cP) plaque may be mounted above the Speed Limit sign and an UNLESS OTHERWISE POSTED (R2-5P) plaque may be mounted below the Speed Limit sign (see Figure 2B-3).~~

Guidance:

09 *A Reduced Speed Limit Ahead (W3-5 or W3-5a) sign (see Section 2C.38) should be used to inform road users of a reduced speed zone where the speed limit is being reduced by more than 10 mph, or where engineering judgment indicates the need for advance notice to comply with the posted speed limit ahead.*

10 *States and local agencies should conduct engineering studies at least once every 5, 7 or 10 years, in compliance with CVC Section 40802 to reevaluate non-statutory speed limits on segments of their roadways that have undergone significant changes since the last review, such as the addition or elimination of parking or driveways, changes in the number of travel lanes, changes in the configuration of bicycle lanes, changes in traffic control signal coordination, or significant changes in traffic volumes.*

11 *No more than three speed limits should be displayed on any one Speed Limit sign or assembly.*

12 ~~*When a speed limit within a speed zone is posted, it should be within 5 mph of the 85th percentile speed of free-flowing traffic.*~~

Standard:

12a When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic, except as shown in the two Options below.

Option:

1. The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th-percentile speed, in compliance with CVC Sections 627 and 22358.5. See Standard below for documentation requirements.
2. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used. Refer to CVC Section 21400(b).

Standard:

12b If the speed limit to be posted has had the 5 mph reduction applied, then an E&TS shall document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer. The reasons for the lower speed limit shall be in compliance with CVC Sections 627 and 22358.5.

Support:

12c The following examples are provided to explain the application of these speed limit criteria:

Example 1. Using Option 1 above and first step is to round down: If the 85th percentile speed in a speed survey for a location was 37 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 37 mph speed. As indicated by the option, this 35 mph established speed limit could be reduced by 5 mph to 30 mph if

the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.

Example 2. Using Option 1 above and first step is to round up: If the 85th percentile speed in a speed survey for a location was 33 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 33 mph speed. As indicated by the option, this 35 mph speed limit could be reduced by 5 mph to 30 mph if the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.

Example 3. Using Option 2 above and first step is to round up: If the 85th percentile speed in a speed survey for a location was 33 mph, instead of rounding up to 35mph, the speed limit can be established at 30mph, but no further reductions can be applied (which is allowed in the two examples above).

Standard:

12d Examples 1 and 2 for establishing posted speed limits shall apply to engineering and traffic surveys (E&TS) performed on or after July 1, 2009 in accordance with Caltrans' Traffic Operations Policy Directive Number 09-04 dated June 29, 2009.

Option:

12e After January 1, 2012, Example 3 may be used to establish speed limits. Refer to CVC 21400(b).

Support:

12f Any existing E&TS that was performed before July 1, 2009 in accordance with previous traffic control device standards is not required to comply with the new criteria until it is due for reevaluation per the 5, 7 or 10 year criteria.

13 *Speed studies for signalized intersection approaches should be taken outside the influence area of the traffic control signal, which is generally considered to be approximately 1/2 mile, to avoid obtaining skewed results for the 85th-percentile speed.*

Support:

14 Advance warning signs and other traffic control devices to attract the motorist's attention to a signalized intersection are usually more effective than a reduced speed limit zone.

Guidance:

15 *An advisory speed plaque (see Section 2C.08) mounted below a warning sign should be used to warn road users of an advisory speed for a roadway condition. A Speed Limit sign should not be used for this situation.*

Option:

16 Other factors that may be considered when establishing or reevaluating speed limits are the following:

A. Road characteristics, shoulder condition, grade, alignment, and sight distance;

B. The pace;

C. Roadside development and environment;

D. Parking practices and pedestrian activity; and

E. Reported crash experience for at least a 12-month period.

17 Two types of Speed Limit signs may be used: one to designate passenger car speeds, including any nighttime information or minimum speed limit that might apply; and the other to show any special speed limits for trucks and other vehicles.

18 A changeable message sign that changes the speed limit for traffic and ambient conditions may be installed provided that the appropriate speed limit is displayed at the proper times.

19 A changeable message sign that displays to approaching drivers the speed at which they are traveling may be installed in conjunction with a Speed Limit sign.

Guidance:

20 *If a changeable message sign displaying approach speeds is installed, the legend YOUR SPEED XX MPH or such similar legend should be displayed. The color of the changeable message legend should be a yellow legend on a black background or the reverse of these colors.*

Support:

21 Advisory Speed signs and plaques are discussed in Sections 2C.08 and 2C.14. Temporary Traffic Control Zone Speed signs are discussed in Part 6. The WORK ZONE (G20-5aP) plaque intended for installation above a Speed Limit sign is discussed in Section 6F.12. School Speed Limit signs are discussed in Section 7B.15.

22 Speed limits in California are governed by the California Vehicle Code (CVC), Sections 22348 through 22413; also, pertinent sections are found in Sections 627 and 40802 and others referenced in this section. See Section 1A.11 for information regarding this publication.

23 Refer to Part 6, Section 6C.01 for speed limit signs in temporary traffic control zones. Refer to Part 7 for speed limit signs in school areas.

Engineering and Traffic Survey (E&TS)

Support:

24 CVC Section 627 defines the term "Engineering and traffic survey" and lists its requirements.

Standard:

25 An engineering and traffic survey (E&TS) shall include, among other requirements deemed necessary by Caltrans, consideration of all of the following:

A. Prevailing speeds as determined by traffic engineering measurements.
B. Collision records.
C. Highway, traffic, and roadside conditions not readily apparent to the driver.

Guidance:

26 *The E&TS should contain sufficient information to document that the required three items of CVC Section 627 are provided and that other conditions not readily apparent to a driver are properly identified.*

27 *Prevailing speeds are determined by a speed zone survey. A speed zone survey should include:*

A. The intent of the speed measurements is to determine the actual speed of unimpeded traffic. The speed of traffic should not be altered by concentrated law enforcement, or other means, just prior to, or while taking the speed measurements.
B. Only one person is required for the field work. Speeds should be read directly from a radar or other electronic speed measuring devices; or,
C. Devices, other than radar, capable of accurately distinguishing and measuring the unimpeded speed of free flowing vehicles may be used.
D. A location should be selected where prevailing speeds are representative of the entire speed zone section. If speeds vary on a given route, more than one speed zone section may be required, with separate measurements for each section. Locations for measurements should be chosen so as to minimize the effects of traffic signals or stop signs.
E. Speed measurements should be taken during off-peak hours between peak traffic periods on weekdays. If there is difficulty in obtaining the desired quantity, speed measurements may be taken during any period with free flowing traffic.
F. The weather should be fair (dry pavement) with no unusual conditions prevailing.
G. The surveyor and equipment should not affect the traffic speeds. For this reason, an unmarked car is recommended, and the radar speed meter located as inconspicuously as possible.
H. In order for the sample to be representative of the actual traffic flow, the minimum sample should be 100 vehicles in each survey. In no case should the sample contain less than 50 vehicles.
I. Short speed zones of less than 0.5 miles should be avoided, except in transition areas.
J. Speed zone changes should be coordinated with changes in roadway conditions or roadside development.
K. Speed zoning should be in 10 mph increments except in urban areas where 5 mph increments are preferable.
L. Speed zoning should be coordinated with adjacent jurisdictions.

Support:

28 Physical conditions such as width, curvature, grade and surface conditions, or any other condition readily apparent to the driver, in the absence of other factors, would not require special downward speed zoning. Refer to CVC 22358.5.

Option:

29 When qualifying an appropriate speed limit, local authorities may also consider all of the following findings:

A. Residential density, if any of the following conditions exist on the particular portion of highway and the property contiguous thereto, other than a business district:
   1. Upon one side of the highway, within 0.25 miles, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures.
   2. Upon both sides of the highway, collectively, within a distance of 0.25 miles the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures.

3. The portion of highway is larger than 0.25 miles but has the ratio of separate dwelling houses or business structures to the length of the highway described in either subparagraph 1 or 2 above.

B. Pedestrian and bicyclist safety.

30 The following two methods of conducting E&TS may be used to establish speed limits:

1. State Highways - The E&TS for State highways is made under the direction of the Caltrans District Traffic Engineer. The data includes:
   a. One copy of the Example of Speed Zone Survey Sheet (See Figure 2B-101(CA)) showing:
      - A north arrow
      - Engineer's station or post mileage
      - Limits of the proposed zones
      - Appropriate notations showing type of roadside development, such as "scattered business," "solid residential," etc. Schools adjacent to the highway are shown, but other buildings need not be plotted unless they are a factor in the speed recommendation or the point of termination of a speed zone.
      - Collision rates for the zones involved
      - Average daily traffic volume
      - Location of traffic signals, signs and markings
      - If the highway is divided, the limits of zones for each direction of travel
      - Plotted 85th percentile and pace speeds at location taken showing speed profile
   b. A report to the District Director that includes:
      - The reason for the initiation of speed zone survey.
      - Recommendations and supporting reasons.
      - The enforcement jurisdictions involved and the recommendations and opinions of those officials.
      - The stationing or reference post in mileage at the beginning and ending of each proposed zone and any intermediate equations. Location ties must be given to readily identifiable physical features.
2. City and County Through Highways, Arterials, Collector Roads and Local Streets.
   a. The short method of speed zoning is based on the premise that a reasonable speed limit is one that conforms to the actual behavior of the majority of motorists, and that by measuring motorists' speeds, one will be able to select a speed limit that is both reasonable and effective. Other factors that need to be considered include but are not limited to: the most recent two-year collision record, roadway design speed, safe stopping sight distance, superelevation, shoulder conditions, profile conditions, intersection spacing and offsets, commercial driveway characteristics, and pedestrian traffic in the roadway without sidewalks.
   b. Determination of Existing Speed Limits - Figures 2B-103(CA) & 2B-104(CA) show examples of data sheets which may be used to record speed observations. Specific types of vehicles may be tallied by use of letter symbols in appropriate squares.

31 In most situations, the short form for local streets and roads will be adequate; however, the procedure used on State highways may be used at the option of the local agency.

Guidance:

32 *The factors justifying a reduction below the 85th percentile speed for the posted speed limit are the same factors mentioned above. Whenever such factors are considered to establish the speed limit, they should be documented on the speed zone survey or the accompanying engineering report.*

33 *The establishment of a speed limit of more than 5 mph below the 85th percentile speed should be done with great care as studies have shown that establishing a speed limit at less than the 85th percentile generally results in an increase in collision rates; in addition, this may make violators of a disproportionate number of the reasonable majority of drivers.*

Support:

34 Generally, the most decisive evidence of conditions not readily apparent to the driver surfaces in collision histories.

35 Speed limits are established at or near the 85th percentile speed, which is defined as that speed at or below which 85th percent of the traffic is moving. The 85th percentile speed is often referred to as the critical speed. Pace speed is defined as the 10 mph increment of speed containing the largest number of vehicles (See Figure 2B-102(CA)). The lower limit of the pace is plotted on the Speed Zone Survey Sheets as an aid in determining the proper zone limits. Speed limits higher than the 85th percentile are not generally considered reasonable and prudent. Speed limits below the 85th percentile do not ordinarily

facilitate the orderly movement of traffic and require constant enforcement to maintain compliance. Speed limits established on the basis of the 85th percentile conform to the consensus of those who drive highways as to what speed is reasonable and prudent, and are not dependent on the judgment of one or a few individuals.

36 The majority of drivers comply with the basic speed law. Speed limits set at or near the 85th percentile speed provide law enforcement officers with a limit to cite drivers who will not conform to what the majority considers reasonable and prudent. Further studies show that establishing a speed limit at less than the 85th percentile (Critical Speed) generally results in an increase in collision rates.

Option:

37 When roadside development results in traffic conflicts and unusual conditions which are not readily apparent to drivers, as indicated in collision records, speed limits somewhat below the 85th percentile may be justified. Concurrence and support of enforcement officials are necessary for the successful operation of a restricted speed zone.

Guidance:

38 *Speed zones of less than 0.5 miles and short transition zones should be avoided.*

Signs

Standard:

39 The Speed Limit (R2-1) sign shall be used to give notice of a prima facie or maximum speed limit except as provided under Prima Facie Speed Limits in CVC 22352.

40 When used, the TRUCKS, 3 AXLES OR MORE 55 MAXIMUM (R6-3(CA)) sign shall be installed approximately 750 feet following each R2-1 sign.

41 The ALL VEHICLES WHEN TOWING 55 MAXIMUM (R6-4(CA)) sign shall be installed approximately 750 feet following the R6-3(CA) sign.

Guidance:

42 *The R6-3(CA) and R6-4(CA) signs should be placed on highway segments where speeds in excess of 55 mph are permitted.*

Option:

43 The existing AUTOS WITH TRAILERS, TRUCKS 55 MAXIMUM (R6-1(CA)) sign may remain in place until it is knocked down, damaged, stolen, vandalized, or otherwise reaches the end of its useful life.

44 The local California Highway Patrol office may be consulted to identify highway segments where enforcement is an issue. On these segments early replacement of existing R6-1(CA) signs may be necessary.

Support:

45 Refer to CVC Section 22406 for types of vehicles subject to the 55 mph maximum speed limit.

Option:

46 The Speed Zone Ahead (R2-4(CA)) sign (see Figure 2B-3(CA)) may be used to inform the motorist of a reduced speed zone.

Standard:

47 The R2-4(CA) sign shall always be followed by a Speed Limit (R2-1) sign installed at the beginning of the zone where the reduced speed limit applies.

48 The End Speed Limit (R3(CA)) sign shall only be used to mark the end of a speed zone.

49 The R3(CA) sign shall not be used at a transition into a change in speed limits within a reduced zone.

Option:

50 The R3(CA) sign (see Figure 2B-3(CA)) may be used with the TRUCK (M4-4) plaque to mark the end of truck speed zones on descending grades.

Standard:

51 Speed limit signs shall be placed at the beginning of all restricted speed zones.

Option:

52 Where speed zones are longer than 1 mile, intermediate signs may be placed at approximate 1 mile intervals. For three or more lanes in each direction, dual installation may be used.

Standard:

53 The Speed Limit (R2-1) and End Speed Limit (R3(CA)) signs, as appropriate shall be placed at the end of all restricted speed zones.

54 Freeways with 65 mph and those segments where a speed limit of 70 mph has been approved by Caltrans, with approval by the California Highway Patrol, shall be posted as follows:

- At the segment entrance, R2-1 signs shall be installed right of traffic off of the right shoulder.
- R2-1 signs shall also be installed off of the right shoulder only, throughout the segment, at a maximum of 25 mile intervals.

Option:

- The 25 mile interval may be modified to include locations following entrance ramps.

Standard:

- The R6-3(CA) sign (see Figure 2B-3(CA)) shall be installed approximately 750 feet following each R2-1 sign, both at the beginning and throughout each 60, 65 or 70 mph segment.
- The R6-4(CA) sign (see Figure 2B-3(CA)) shall be installed approximately 750 feet following each R6-3(CA) sign.

Option:

- The SLOWER TRAFFIC KEEP RIGHT (R4-3) signs may be installed at locations where there is a tendency of the motorists to drive in the left-hand lane(s) below the normal speed of traffic.

Standard:

- Signs shall be placed in protected locations.
- At the end of the 70/65 mph segment, R2-1 signs shall be installed off of the right shoulder.

55 Freeway segments where a 55 mph speed limit has been approved by Caltrans, with the approval of the California Highway Patrol, shall be posted as follows:

- The beginning of the segment shall be posted with an R2-1 sign installed on the right shoulder and left shoulder where the median is of sufficient width to permit sign maintenance without lane closures.

Guidance:

- *Subsequent signs should then be posted on the right shoulder, on approximate 3 mile intervals, with no more than 3 interchanges between signs.*
- *At the end of the segment, an R2-1 sign with the appropriate number for the next speed limit should be posted on the right shoulder.*

56 *Conventional highways with 55 mph speed limits should be posted as follows:*

Standard:

- The beginning of the segment shall be posted with an R2-1 sign installed on the right shoulder.

Guidance:

- *Subsequent signs should then be posted on approximate 5 to 10 mile intervals and immediately after locations where significant volumes of traffic enter the segment.*
- *At the end of the segment, an R2-1 sign with the appropriate number for the next speed limit should be posted on the right shoulder.*

Conventional highways with 65 mph speed limits should be posted as follows:

- *The beginning of the segment should be posted with an R2-1 sign installed on the right shoulder.*
- *Subsequent signs should then be posted at 5 to 10 mile intervals and after locations where significant volumes of traffic enter the segment.*
- *At the end of the segment, an R2-1 sign with the appropriate number for the next speed limit should be posted on the right shoulder.*

Option:

57 Pavement markings with appropriate numerals (see Section 3B.21) may be used to supplement speed limit signs.

Standard:

58 The R2-1 and R6-3(CA) and R6-4(CA) signs giving maximum statewide speed limits for various types of vehicles shall be installed on all State highways near the points of entrance into California.

Guidance:

59 *The R2-1 and R6-3(CA) and R6-4(CA) signs should be placed in a location to be most effectively viewed by the approaching motorists.*

Standard:

60 Speed Limit (R2-1) signs shall be installed throughout segments of freeway with posted speed limits of 65 mph or 70 mph at a maximum of 25 mile intervals.

Option:

61 The 25 mile interval may be modified to include locations following entrance ramps.

Standard:

62 Speed Limit (R2-1) signs shall be installed throughout segments of conventional highways with a posted speed limit of 65 mph at 5 mile to 10 mile intervals.

63 Speed Limit (R2-1) signs shall be installed throughout segments of freeway with a posted speed limit of 55 mph at approximately 3 mile intervals with no more than 3 interchanges between signs.

64 Speed Limit (R2-1) signs shall be installed throughout segments of conventional highways with a posted speed limit of 55 mph at 5 mile to 10 mile intervals.

Speed Enforced Signs

Option:

65 The SPEED ENFORCED BY RADAR (R48(CA)) sign (see Figure 2B-3(CA)) may be used where the California Highway Patrol has received authority to use radar and requests such signs.

Guidance:

66 *One sign should be used in each direction at the beginning of the segment of roadway, and at intervening major route intersections, where radar enforcement is in effect.*

Support:

67 The R48(CA) sign is a stand-alone sign intended to alert motorists that speed is enforced by radar on a particular segment of roadway.

Option:

68 The RADAR ENFORCED (R48-1(CA)) sign (see Figure 2B-3(CA)) may be used in combination with the Speed Limit (R2-1) sign on any roadway where law enforcement has the authority to use radar.

Guidance:

69 *When used, the R48-1(CA) sign should be placed below the R2-1 sign, at the beginning of the segment of roadway and at intervening major intersections, where radar enforcement is in effect.*

Option:

70 The SPEED ENFORCED BY AIRCRAFT (R48-2(CA)) sign (see Figure 2B-3(CA)) may be placed, when requested by the California Highway Patrol, on sections of highway regularly patrolled by aircraft.

Standard:

71 The R48-2(CA) sign shall be used for both directions of travel.

Guidance:

72 *The R48-2(CA) sign should be placed at the beginning of the section and spaced at 25 mile intervals. See Figure 3B-105(CA).*

Vehicle Speed Feedback Signs

Option:

73 A Vehicle Speed Feedback sign that displays to approaching drivers the speed at which they are traveling may be installed in conjunction with a Speed Limit (R2-1) sign.

Standard:

74 If a Vehicle Speed Feedback sign displaying approach speeds is installed, the legend shall be YOUR SPEED XX. The numerals displaying the speed shall be white, yellow, yellow-green or amber color on black background. When activated, lights shall be steady-burn conforming to the provisions of CVC Sections 21466 and 21466.5. Vehicle Speed Feedback signs shall not alternatively be operated as variable speed limit signs.

Guidance:

75 *To the degree practical, numerals for displaying approach speeds should be similar font and size as numerals on the corresponding Speed Limit (R2-1) sign.*

Option:

76 When used, the Vehicle Speed Feedback sign may be mounted on either a separate support or on the same support as the Speed Limit (R2-1) sign.

77 In lieu of lights, legend may be retroreflective film for flip-disk systems.

78 The legend YOUR SPEED may be white on black plaque located above the changeable speed display.

Support:

79 Driver comprehension may improve when the Vehicle Speed Feedback Sign is mounted on the same support below the Speed Limit (R2-1) sign.

80 Vehicle Speed Feedback Signs are appropriate for use with advisory speed signs and with temporary signs in temporary traffic control zones.

Basic Speed Law and Prima Facie Speed Limits – See CVC 22350 & 22352

Support:

81 The basic speed law states "No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property."

Standard:

82 Prima facie speed limits are specific limits and shall apply unless changed based upon an engineering and traffic survey (E&TS) and signs are posted that display the new speed limit.

Option:

83 Prima facie speed limits may be preempted by the basic speed law, when roadway, traffic or weather conditions warrant a lower speed.

Use of Metric System Designations – See CVC 21351.3

Option:

84 Dual units for speed limits on signs may be placed on local streets and roads in both Metric and English units.

Guidance:

85 *If used, dual unit speed limits should be rounded to the nearest 10 km/h for Metric and 5 mph for English units for posting on signs on local streets and roads.*

Support:

86 Refer to AASHTO's Traffic Engineering Metric Conversion Factors. See Section 1A.11 for information regarding this publication.

Standard:

87 Metric speed limits shall not be placed on State highways. For use in this California MUTCD, 70 mph shall be shown as a metric equivalent of 110 km/h, neither of which shall be used on any local street or road.

Legal Authority for Establishing Speed Limits

Support:

88 Delegation of legal authority to set speed limits on State highways is given to Caltrans District Directors. The District Director of each transportation district is authorized to issue orders regulating the speed of traffic, up to 65 mph on State highways. The Director of Caltrans retains the authority to approve variable, minimum, and maximum speeds up to 70 mph on State freeways.

Standard:

89 The speed limits shown in Table 2B-101(CA) shall apply, unless changed upon the basis of an engineering and traffic survey (E&TS).

Option:

90 The speed limits shown in Table 2B-102(CA) may apply, unless changed upon E&TS.

Variable Speed Limits on Freeways - See CVC 22355

Option:

91 The following speed limits may apply:

- Whenever Caltrans determines based upon an engineering and traffic survey (E&TS) that the safe and orderly movement of traffic upon any freeway segment will be facilitated by the establishment of variable speed limits.
- Caltrans may erect, regulate, and control signs upon the state highway which is a freeway, or any portion thereof, which, if used, signs shall be designed to permit display of different speeds at various times of the day or night.
- Such signs need not conform to the standards & specifications per CVC 21400, but if used, shall be of sufficient size and clarity to give adequate notice of the applicable speed limit.

Minimum Speed Limits on State Highways - See CVC 22400

Option:

92 The following speed limits may apply:

- Whenever Caltrans determines based upon an engineering and traffic survey (E&TS) that slow speeds on any part of a state highway consistently impede the normal and reasonable movement of traffic, Caltrans may determine and declare a minimum speed limit. Appropriate signs giving notice shall then be installed on that segment.
- A motorist can be cited for stopping or impeding the normal and reasonable movement of traffic unless the stop is necessary for safe operation and in compliance with the law.

Speed Traps

Support:

93 Refer to CVC 40802 for Speed Traps.

Standard:

94 A speed trap shall not apply to a local street, road, or school zone.

95 A section of highway shall be defined as a speed trap if the prima facie speed limit is not justified by an engineering and traffic survey (E&TS) within five years, and the enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects.

96 This time provision shall be extended to seven years when using radar and all of the following criteria are met:

- The arresting officer has successfully completed a minimum of 24 hours of certified radar operator course training.
- The radar used to measure the speed meets or exceeds the minimal operational standards of the National Traffic Highway Safety Administration, and has been calibrated within three years of the alleged violation.

97 This time provision shall be extended to seven years when using laser or other electronic device (other than radar) and all of the following criteria are met:

- The arresting officer has successfully completed a minimum of 24 hours of certified radar operator course training.
- The arresting officer has successfully completed a minimum of 2 hours of additional approved certified training.
- The radar used to measure the speed meets or exceeds the minimal operational standards of the National Traffic Highway Safety Administration, and has been calibrated within three years of the alleged violation.

Option:

98 This time provision for an E&TS may be extended to ten years when all of the above conditions are met and no significant changes in roadway or traffic conditions have occurred, including changes in adjoining property or land use, roadway width, or traffic volume as determined by a registered engineer.

Truck Speed Zone on Descending Grades

Guidance:

99 *Highway descending grades, if used for posting TRUCK Speed Limit signs (R2-1 and M4-4) for trucks travelling downhill, should have recorded incident history of runaway commercial vehicles. Descending grades shorter than 1 mile should be avoided for posting signs because deceleration of vehicles due to braking action can generally provide sufficient control on descending grades of less than 1 mile.*

Support:

100 To establish a downhill truck speed limit, a physical profile showing length and gradient and a downhill speed profile for three or more axle commercial vehicles with a gross rating of 10,000 lbs. or more will be provided.

Standard:

101 Speed profiles for truck speed limits shall be prepared on the same form as other speed surveys. An analysis of collisions involving trucks shall be prepared.

Guidance:

102 *Posted speeds should be on the low side of the scale, generally within the pace of loaded commercial vehicles.*

Standard:

103 If warranted, the Caltrans District Director shall issue a standard speed zone order.

Support:

104 Posting of the regulation will be by placement of a standard 36 x 45 inch Speed Limit (R2-1) sign with a TRUCK (M4-4) plate above.

Standard:

105 A standard End Speed Limit (R3(CA)) sign with TRUCK (M4-4) plate shall be posted at the end of the truck zone when appropriate.

Speed Zones in Temporary Traffic Control Areas

Support:

106 For signing and establishing speed zones in temporary traffic control areas, refer to Section 6C.01 in Part 6.

Section 2B.14 Truck Speed Limit Plaque (R2-2P)

Standard:

01 **Where a special speed limit applies to trucks or other vehicles, the legend TRUCKS XX or such similar legend shall be displayed below the legend Speed Limit XX on the same sign ~~or on a separate R2-2P plaque (see Figure 2B-3) below the standard legend.~~**

02 The Truck Speed Limit (R2-2) sign shall not be used in California. The TRUCK (M4-4) plaque placed above the Speed Limit (R2-1) sign shall be used instead.

03 The TRUCK (M4-4) plaque shall be placed above the Speed Limit (R2-1) sign to indicate the truck speed limit. It shall also be placed above the End Speed Limit (R3(CA)) sign to mark the end of truck speed limits.

Support:

04 Refer to Section 2B.13 for more details.

Section 2B.15 Night Speed Limit Plaque (R2-3P)

Standard:

01 **Where different speed limits are prescribed for day and night, both limits shall be posted.**

Guidance:

02 *A Night Speed Limit (R2-3P) plaque (see Figure 2B-3) should be reversed using a white retroreflectorized legend and border on a black background.*

Option:

03 A Night Speed Limit plaque may be combined with or installed below the standard Speed Limit (R2-1) sign.

Support:

04 Refer to CVC 22355.

Section 2B.16 Minimum Speed Limit Plaque (R2-4P)

Standard:

01 **A Minimum Speed Limit (R2-4P) plaque (see Figure 2B-3) shall be displayed only in combination with a Speed Limit sign.**

Option:

02 Where engineering judgment determines that slow speeds on a highway might impede the normal and reasonable movement of traffic, the Minimum Speed Limit plaque may be installed below a Speed Limit (R2-1)

sign to indicate the minimum legal speed. If desired, the Speed Limit sign and the Minimum Speed Limit plaque may be combined on the R2-4a sign (see Figure 2B-3).

Support:

03 Refer to CVC 22400.

Section 2B.17 Higher Fines Signs and Plaque (R2-6P, R2-10, and R2-11)

Standard:

01 **If increased fines are imposed for traffic violations within a designated zone of a roadway, a BEGIN ~~HIGHER~~ DOUBLE FINES ZONE (R2-10) sign (see Figure 2B-3) or a FINES ~~HIGHER~~ DOUBLE (R2-6P) plaque (see Figure 2B-3) shall be used to provide notice to road users. If used, the FINES ~~HIGHER~~ DOUBLE plaque shall be mounted below an applicable regulatory or warning sign in a temporary traffic control zone, a school zone, or other applicable designated zone.**

02 **If an R2-10 sign or an R2-6P plaque is posted to provide notice of increased fines for traffic violations, an END ~~HIGHER~~ DOUBLE FINES ZONE (R2-11) sign (see Figure 2B-3) shall be installed at the downstream end of the zone to provide notice to road users of the termination of the increased fines zone.**

Guidance:

03 *If used, the BEGIN ~~HIGHER~~ DOUBLE FINES ZONE sign or FINES ~~HIGHER~~ DOUBLE plaque should be located at the beginning of the temporary traffic control zone, school zone, or other applicable designated zone and just beyond any interchanges, major intersections, or other major traffic generators.*

Standard:

04 **The ~~Higher~~ Double Fines signs and plaque shall have a black legend and border on a white rectangular background. All supplemental plaques mounted below the ~~Higher~~ Double Fines signs and plaque shall have a black legend and border on a white rectangular background.**

Guidance:

05 *Agencies should limit the use of the ~~Higher~~ Double Fines signs and plaque to locations where work is actually underway, or to locations where the roadway, shoulder, or other conditions, including the presence of a school zone and/or a reduced school speed limit zone, require a speed reduction or extra caution on the part of the road user.*

Option:

06 Alternate legends such as BEGIN (or END) DOUBLE FINES ZONE may also be used for the R2-10 and R2-11 signs.

07 The legend FINES HIGHER on the R2-6P plaque may be replaced by FINES DOUBLE (R2-6aP), $XX FINE (R2-6bP), or another legend appropriate to the specific regulation (see Figure 2B-3).

08 ~~The following may be mounted below an R2-10 sign or R2-6P plaque:~~

~~A. A supplemental plaque specifying the times that the higher fines are in effect (similar to the S4-1P plaque shown in Figure 7B-1), or~~

~~B. A supplemental plaque WHEN CHILDREN (WORKERS) ARE PRESENT, or~~

~~C. A supplemental plaque WHEN FLASHING (similar to the S4-4P plaque shown in Figure 7B-1) if used in conjunction with a yellow flashing beacon.~~

Support:

09 Section 6F.12 contains information regarding other signs and plaques associated with increased fines for traffic violations in temporary traffic control zones. ~~Section 7B.10 contains information regarding other signs and plaques associated with increased fines for traffic violations in designated school zones.~~

10 In California, as per CVC only doubling of the fines is allowed, not higher fines of other denominations. Refer to Section 6F.12 and CVC 42009 for fines for offenses committed in highway construction or maintenance area.

Standard:

11 The SPECIAL DRIVING ZONE BEGINS HERE – DOUBLE FINE ZONE (SR53(CA)) sign (see Figure 2B-3(CA)) shall be placed at the beginning of those portions of highways designated and identified as Safety Enhancement – Double Fine Zones per CVC 42010.

12 The SPECIAL DRIVING ZONE ENDS HERE (SR55(CA)) sign (see Figure 2B-3(CA)) shall be placed at the end of those portions of highways designated and identified as Safety Enhancement – Double Fine Zones per CVC 42010.

Appendix B

Speed Survey Statistical Summary Sheets

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	1	0	55	X		1	
54	2	0	54	X X		2	
53	0	0	53			0	
52	1	0	52	X		1	
51	1	1	51	X	X	2	
50	0	1	50		X	1	
49	1	3	49	X	X X X	4	
48	2	2	48	X X	X X	4	
47	1	2	47	X	X X	3	
46	0	1	46		X	1	
45	6	0	45	X X X X X X		6	
44	1	3	44	X	X X X	4	*
43	3	3	43	X X X	X X X	6	*
42	5	5	42	X X X X X	X X X X X	10	*
41	6	4	41	X X X X X X	X X X X	10	P
40	1	2	40	X	X X	3	A
39	7	5	39	X X X X X X X	X X X X X	12	C
38	4	4	38	X X X X	X X X X	8	E
37	4	5	37	X X X X	X X X X X	9	*
36	2	1	36	X X	X	3	*
35	1	6	35	X	X X X X X X	7	*
34	1	1	34	X	X	2	
33	0	1	33		X	1	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Alaska Street

Between: Barton Road - Park Avenue

Weather: Clear

Date: 8/25/21

Time From: 11:25

Time To: 11:45

Existing Speed Limit: 45 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	18%	20%	25%
% In Pace:	78%	76%	72%
% Under Pace:	4%	4%	3%
Average Speed:	42 MPH	41 MPH	42 MPH
Pace Speed:	36 - 45 MPH	35 - 44 MPH	35 - 44 MPH
15th Percentile / Critical Speed:	37 MPH	35 MPH	37 MPH
50th Percentile / Critical Speed:	41 MPH	40 MPH	41 MPH
85th Percentile / Critical Speed:	48 MPH	47 MPH	47 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	1	46		X	1	
45	3	1	45	X X X	X	4	
44	1	1	44	X	X	2	
43	0	4	43		X X X X	4	
42	1	6	42	X	X X X X X X	7	*
41	3	5	41	X X X	X X X X X	8	*
40	1	3	40	X	X X X	4	*
39	8	6	39	X X X X X X X X	X X X X X X	14	
38	6	6	38	X X X X X X	X X X X X X	12	
37	4	5	37	X X X X	X X X X X	9	
36	7	4	36	X X X X X X X	X X X X	11	
35	5	4	35	X X X X X	X X X X	9	*
34	5	0	34	X X X X X		5	*
33	3	2	33	X X X	X X	5	*
32	3	2	32	X X X	X X	5	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Alaska Street

Between: Park Avenue - Lugonia Avenue

Weather: Clear

Date: 8/25/21

Time From: 11:05

Time To: 11:25

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	10%	4%	11%
% In Pace:	90%	88%	84%
% Under Pace:	0%	8%	5%
Average Speed:	37 MPH	39 MPH	38 MPH
Pace Speed:	32 - 41 MPH	35 - 44 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	34 MPH	35 MPH	34 MPH
50th Percentile / Critical Speed:	37 MPH	39 MPH	38 MPH
85th Percentile / Critical Speed:	41 MPH	42 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

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Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
75	0	0	75			0
74	0	0	74			0
73	0	0	73			0
72	0	0	72			0
71	0	0	71			0
70	0	0	70			0
69	0	0	69			0
68	0	0	68			0
67	0	0	67			0
66	0	0	66			0
65	0	3	65		X X X	3
64	0	1	64		X	1
63	0	0	63			0
62	0	0	62			0
61	1	1	61	X	X	2
60	1	0	60	X		1
59	1	2	59	X	X X	3
58	3	3	58	X X X	X X X	6
57	1	4	57	X	X X X X	5
56	1	3	56	X	X X X	4
55	3	2	55	X X X	X X	5
54	1	3	54	X	X X X	4
53	3	0	53	X X X		3
52	3	4	52	X X X	X X X X	7
51	3	5	51	X X X	X X X X X	8
50	2	3	50	X X	X X X	5
49	9	5	49	X X X X X X X X X	X X X X X	14
48	6	1	48	X X X X X X	X	7
47	3	4	47	X X X	X X X X	7
46	0	2	46		X X	2
45	2	1	45	X X	X	3
44	2	1	44	X X	X	3
43	2	2	43	X X	X X	4
42	1	0	42	X		1
41	1	0	41	X		1
40	1	0	40	X		1
39	0	0	39			0
38	0	0	38			0
37	0	0	37			0
36	0	0	36			0
35	0	0	35			0
34	0	0	34			0
33	0	0	33			0
32	0	0	32			0
31	0	0	31			0
30	0	0	30			0
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

* * * PACE * * *

Location: Alabama Street

Between: City limit line south of Santa Ana River - City limit line north of Santa Ana River

Weather: Clear

Date: 8/25/21

Time From: 10:45

Time To: 11:05

Existing Speed Limit: 50 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	14%	14%	21%
% In Pace:	68%	64%	64%
% Under Pace:	18%	22%	15%
Average Speed:	50 MPH	53 MPH	52 MPH
Pace Speed:	47 - 56 MPH	49 - 58 MPH	47 - 56 MPH
15th Percentile / Critical Speed:	45 MPH	47 MPH	46 MPH
50th Percentile / Critical Speed:	49 MPH	52 MPH	51 MPH
85th Percentile / Critical Speed:	56 MPH	58 MPH	58 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	1	0	48	X		1	
47	4	2	47	X X X X	X X	6	*
46	3	2	46	X X X	X X	5	*
45	6	8	45	X X X X X X	X X X X X X X X	14	*
44	8	4	44	X X X X X X X X	X X X X	12	
43	8	7	43	X X X X X X X X	X X X X X X X	15	
42	3	7	42	X X X	X X X X X X X	10	
41	7	7	41	X X X X X X X	X X X X X X X	14	
40	3	2	40	X X X	X X	5	*
39	1	3	39	X	X X X	4	*
38	2	2	38	X X	X X	4	*
37	1	0	37	X		1	
36	0	3	36		X X X	3	
35	2	1	35	X X	X	3	
34	0	1	34		X	1	
33	1	1	33	X	X	2	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Alessandro Road

Between: Crescent Avenue - Sunset Drive

Weather: Clear

Date: 8/31/21

Time From: 11:30

Time To: 11:50

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	2%	0%	1%
% In Pace:	90%	88%	89%
% Under Pace:	8%	12%	10%
Average Speed:	43 MPH	42 MPH	42 MPH
Pace Speed:	38 - 47 MPH	38 - 47 MPH	38 - 47 MPH
15th Percentile / Critical Speed:	40 MPH	38 MPH	39 MPH
50th Percentile / Critical Speed:	43 MPH	42 MPH	43 MPH
85th Percentile / Critical Speed:	46 MPH	45 MPH	45 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	1	0	51	X		1
50	1	0	50	X		1
49	1	1	49	X	X	2
48	8	0	48	X X X X X X X X		8
47	6	2	47	X X X X X X	X X	8
46	8	6	46	X X X X X X X X	X X X X X X	14
45	6	3	45	X X X X X X	X X X	9
44	5	5	44	X X X X X	X X X X X	10
43	3	4	43	X X X	X X X X	7
42	3	6	42	X X X	X X X X X X	9
41	2	5	41	X X	X X X X X	7
40	3	4	40	X X X	X X X X	7
39	0	3	39		X X X	3
38	0	3	38		X X X	3
37	2	1	37	X X	X	3
36	0	1	36		X	1
35	1	5	35	X	X X X X X	6
34	0	1	34		X	1
33	0	0	33			0
32	0	0	32			0
31	0	0	31			0
30	0	0	30			0
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

PACE

Location: Alessandro Road

Between: Sunset Drive - Creekside Drive

Weather: Clear

Date: 9/9/21

Time From: 9:10

Time To: 9:30

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	4%	2%	4%
% In Pace:	90%	82%	82%
% Under Pace:	6%	16%	14%
Average Speed:	45 MPH	42 MPH	43 MPH
Pace Speed:	40 - 49 MPH	38 - 47 MPH	39 - 48 MPH
15th Percentile / Critical Speed:	41 MPH	37 MPH	39 MPH
50th Percentile / Critical Speed:	45 MPH	42 MPH	44 MPH
85th Percentile / Critical Speed:	48 MPH	46 MPH	47 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	1	0	44	X		1	
43	2	0	43	X X		2	
42	2	2	42	X X	X X	4	
41	7	3	41	X X X X X X X	X X X	10	*
40	4	2	40	X X X X	X X	6	*
39	4	3	39	X X X X	X X X	7	*
38	6	2	38	X X X X X X	X X	8	P
37	3	3	37	X X X	X X X	6	A
36	2	5	36	X X	X X X X X	7	C
35	6	6	35	X X X X X X	X X X X X X	12	E
34	5	4	34	X X X X X	X X X X	9	*
33	2	5	33	X X	X X X X X	7	*
32	1	4	32	X	X X X X	5	*
31	2	3	31	X X	X X X	5	
30	1	3	30	X	X X X	4	
29	2	2	29	X X	X X	4	
28	0	2	28		X X	2	
27	0	1	27		X	1	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Vehicles Surveyed

Location: Alessandro Road

Between: Creekside Drive - San Timoteo Canyon Road

Weather: Clear

Date: 9/9/21

Time From: 9:30

Time To: 9:50

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	2%	14%	7%
% In Pace:	82%	76%	77%
% Under Pace:	16%	10%	16%
Average Speed:	37 MPH	35 MPH	36 MPH
Pace Speed:	34 - 43 MPH	30 - 39 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	33 MPH	30 MPH	31 MPH
50th Percentile / Critical Speed:	38 MPH	35 MPH	36 MPH
85th Percentile / Critical Speed:	41 MPH	39 MPH	41 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	1	52		X	1	
51	1	2	51	X	X X	3	
50	3	2	50	X X X	X X	5	
49	0	0	49			0	
48	3	3	48	X X X	X X X	6	
47	2	0	47	X X		2	
46	2	3	46	X X	X X X	5	*
45	3	3	45	X X X	X X X	6	*
44	7	3	44	X X X X X X X	X X X	10	*
43	4	3	43	X X X X	X X X	7	P
42	4	6	42	X X X X	X X X X X X	10	A
41	2	5	41	X X	X X X X X	7	C
40	4	5	40	X X X X	X X X X X	9	E
39	1	1	39	X	X	2	*
38	8	6	38	X X X X X X X X	X X X X X X	14	*
37	1	2	37	X	X X	3	*
36	3	1	36	X X X	X	4	
35	0	0	35			0	
34	1	2	34	X	X X	3	
33	1	1	33	X	X	2	
32	0	1	32		X	1	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Alta Vista Drive

Between: Florida Street - Sunset Drive

Weather: Clear

Date: 9/8/21

Time From: 9:00

Time To: 9:50

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	16%	17%
% In Pace:	74%	74%	73%
% Under Pace:	12%	10%	10%
Average Speed:	42 MPH	42 MPH	42 MPH
Pace Speed:	38 - 47 MPH	37 - 46 MPH	37 - 46 MPH
15th Percentile / Critical Speed:	38 MPH	38 MPH	38 MPH
50th Percentile / Critical Speed:	42 MPH	42 MPH	42 MPH
85th Percentile / Critical Speed:	47 MPH	48 MPH	47 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	3	52		X X X	3	
51	0	2	51		X X	2	
50	1	2	50	X	X X	3	
49	0	0	49			0	
48	1	3	48	X	X X X	4	
47	4	3	47	X X X X	X X X	7	*
46	2	3	46	X X	X X X	5	*
45	7	4	45	X X X X X X X	X X X X	11	*
44	4	4	44	X X X X	X X X X	8	P
43	4	5	43	X X X X	X X X X X	9	A
42	4	5	42	X X X X	X X X X X	9	C
41	7	1	41	X X X X X X X	X	8	E
40	2	2	40	X X	X X	4	*
39	5	3	39	X X X X X	X X X	8	*
38	3	3	38	X X X	X X X	6	*
37	3	2	37	X X X	X X	5	
36	0	2	36		X X	2	
35	1	1	35	X	X	2	
34	2	0	34	X X		2	
33	0	2	33		X X	2	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Barton Road

Between: West City Limit - Terracina Boulevard

Weather: Clear

Date: 8/25/21

Time From: 12:20

Time To: 12:40

Existing Speed Limit: 45 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	4%	14%	12%
% In Pace:	84%	66%	75%
% Under Pace:	12%	20%	13%
Average Speed:	42 MPH	43 MPH	43 MPH
Pace Speed:	38 - 47 MPH	39 - 48 MPH	38 - 47 MPH
15th Percentile / Critical Speed:	38 MPH	38 MPH	38 MPH
50th Percentile / Critical Speed:	42 MPH	43 MPH	43 MPH
85th Percentile / Critical Speed:	46 MPH	48 MPH	47 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	2	0	52	X X		2	
51	0	0	51			0	
50	1	2	50	X	X X	3	
49	2	3	49	X X	X X X	5	
48	0	0	48			0	
47	0	1	47		X	1	
46	4	3	46	X X X X	X X X	7	*
45	5	2	45	X X X X X	X X	7	*
44	4	4	44	X X X X	X X X X	8	*
43	4	7	43	X X X X	X X X X X X X	11	P
42	1	8	42	X	X X X X X X X X	9	A
41	3	5	41	X X X	X X X X X	8	C
40	5	3	40	X X X X X	X X X	8	E
39	6	4	39	X X X X X X	X X X X	10	*
38	3	1	38	X X X	X	4	*
37	3	2	37	X X X	X X	5	*
36	2	1	36	X X	X	3	
35	1	1	35	X	X	2	
34	1	1	34	X	X	2	
33	1	1	33	X	X	2	
32	0	0	32			0	
31	0	0	31			0	
30	2	0	30	X X		2	
29	0	1	29		X	1	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Barton Road

Between: Terracina Boulevard - Alabama Street

Weather: Clear

Date: 8/25/21

Time From: 12:40

Time To: 1:00

Existing Speed Limit: 45 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	12%	11%
% In Pace:	76%	78%	77%
% Under Pace:	14%	10%	12%
Average Speed:	41 MPH	42 MPH	42 MPH
Pace Speed:	37 - 46 MPH	37 - 46 MPH	37 - 46 MPH
15th Percentile / Critical Speed:	37 MPH	38 MPH	37 MPH
50th Percentile / Critical Speed:	41 MPH	42 MPH	42 MPH
85th Percentile / Critical Speed:	46 MPH	46 MPH	46 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Vehicles Surveyed: Eastbound	Vehicles Surveyed: Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	2	0	50	X X		2	
49	2	0	49	X X		2	
48	2	3	48	X X	X X X	5	
47	2	4	47	X X	X X X X	6	*
46	4	3	46	X X X X	X X X	7	*
45	2	2	45	X X	X X	4	*
44	2	4	44	X X	X X X X	6	P
43	1	6	43	X	X X X X X X	7	A
42	1	3	42	X	X X X	4	C
41	6	4	41	X X X X X X	X X X X	10	E
40	7	2	40	X X X X X X X	X X	9	*
39	3	0	39	X X X		3	*
38	4	5	38	X X X X	X X X X X	9	*
37	2	4	37	X X	X X X X	6	
36	3	1	36	X X X	X	4	
35	1	1	35	X	X	2	
34	4	4	34	X X X X	X X X X	8	
33	0	3	33		X X X	3	
32	1	1	32	X	X	2	
31	1	0	31	X		1	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Barton Road

Between: Alabama Street - Lakeside Avenue

Weather: Clear

Date: 8/25/21

Time From: 1:00

Time To: 1:20

Existing Speed Limit: 40 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	12%	6%	9%
% In Pace:	64%	66%	65%
% Under Pace:	24%	28%	26%
Average Speed:	41 MPH	41 MPH	41 MPH
Pace Speed:	38 - 47 MPH	38 - 47 MPH	38 - 47 MPH
15th Percentile / Critical Speed:	36 MPH	34 MPH	35 MPH
50th Percentile / Critical Speed:	40 MPH	41 MPH	41 MPH
85th Percentile / Critical Speed:	47 MPH	46 MPH	46 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Vehicles Surveyed: Eastbound	Vehicles Surveyed: Westbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	1	0	43	X		1
42	0	1	42		X	1
41	2	3	41	X X	X X X	5
40	2	1	40	X X	X	3
39	1	0	39	X		1
38	2	0	38	X X		2
37	1	4	37	X	X X X X	5
36	2	0	36	X X		2
35	2	9	35	X X	X X X X X X X X X	11
34	0	2	34		X X	2
33	1	2	33	X	X X	3
32	1	4	32	X	X X X X	5
31	5	4	31	X X X X X	X X X X	9
30	2	2	30	X X	X X	4
29	4	3	29	X X X X	X X X	7
28	2	4	28	X X	X X X X	6
27	2	1	27	X X	X	3
26	2	1	26	X X	X	3
25	4	3	25	X X X X	X X X	7
24	8	3	24	X X X X X X X X	X X X	11
23	5	2	23	X X X X X	X X	7
22	1	1	22	X	X	2
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

Location: Brockton Avenue

Between: New York Street - Texas Street

Weather: Clear

Date: 9/1/21

Time From: 9:05

Time To: 10:00

Existing Speed Limit: 35 MPH

PACE	Eastbound	Westbound	Combined Statistics
% Over Pace:	28%	10%	36%
% In Pace:	70%	68%	62%
% Under Pace:	2%	22%	2%
Average Speed:	30 MPH	32 MPH	31 MPH
Pace Speed:	23 - 32 MPH	28 - 37 MPH	23 - 32 MPH
15th Percentile / Critical Speed:	24 MPH	25 MPH	24 MPH
50th Percentile / Critical Speed:	29 MPH	32 MPH	30 MPH
85th Percentile / Critical Speed:	38 MPH	37 MPH	37 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	1	1	47	X	X	2	
46	1	0	46	X		1	
45	3	2	45	X X X	X X	5	
44	2	0	44	X X		2	
43	2	2	43	X X	X X	4	
42	2	5	42	X X	X X X X X	7	*
41	2	3	41	X X	X X X	5	*
40	3	3	40	X X X	X X X	6	*
39	1	4	39	X	X X X X	5	
38	3	0	38	X X X		3	
37	5	6	37	X X X X X	X X X X X X	11	
36	1	6	36	X	X X X X X X	7	
35	2	4	35	X X	X X X X	6	*
34	6	2	34	X X X X X X	X X	8	*
33	2	4	33	X X	X X X X	6	*
32	3	3	32	X X X	X X X	6	
31	3	1	31	X X X	X	4	
30	3	0	30	X X X		3	
29	0	0	29			0	
28	1	1	28	X	X	2	
27	3	3	27	X X X	X X X	6	
26	1	0	26	X		1	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Vehicles Surveyed

Location: Brockton Avenue

Between: Texas Street - Church Street

Weather: Clear

Date: 9/1/21

Time From: 10:00

Time To: 10:45

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	26%	10%	14%
% In Pace:	58%	74%	64%
% Under Pace:	16%	16%	22%
Average Speed:	36 MPH	37 MPH	37 MPH
Pace Speed:	31 - 40 MPH	33 - 42 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	30 MPH	32 MPH	31 MPH
50th Percentile / Critical Speed:	36 MPH	37 MPH	37 MPH
85th Percentile / Critical Speed:	43 MPH	42 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	1	0	45	X		1	
44	0	0	44			0	
43	1	1	43	X	X	2	
42	2	1	42	X X	X	3	
41	2	7	41	X X	X X X X X X	9	*
40	2	5	40	X X	X X X X X	7	*
39	5	3	39	X X X X X	X X X	8	*
38	3	6	38	X X X	X X X X X X	9	P
37	6	4	37	X X X X X X	X X X X	10	A
36	6	7	36	X X X X X X	X X X X X X X	13	C
35	4	2	35	X X X X	X X	6	E
34	4	3	34	X X X X	X X X	7	*
33	4	3	33	X X X X	X X X	7	*
32	4	2	32	X X X X	X X	6	*
31	2	3	31	X X	X X X	5	
30	3	3	30	X X X	X X X	6	
29	0	0	29			0	
28	1	0	28	X		1	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Brockton Avenue

Between: Church Street - Judson Street

Weather: Clear

Date: 9/2/21

Time From: 1:05

Time To: 1:40

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	16%	4%	6%
% In Pace:	82%	84%	82%
% Under Pace:	2%	12%	12%
Average Speed:	36 MPH	37 MPH	36 MPH
Pace Speed:	30 - 39 MPH	32 - 41 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	32 MPH	32 MPH	32 MPH
50th Percentile / Critical Speed:	36 MPH	37 MPH	36 MPH
85th Percentile / Critical Speed:	40 MPH	41 MPH	41 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

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Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	1	45		X	1	
44	1	0	44	X		1	
43	1	1	43	X	X	2	
42	2	3	42	X X	X X X	5	
41	1	2	41	X	X X	3	
40	1	2	40	X	X X	3	
39	2	6	39	X X	X X X X X X	8	*
38	4	3	38	X X X X	X X X	7	*
37	6	5	37	X X X X X X	X X X X X	11	*
36	7	4	36	X X X X X X X	X X X X	11	P
35	6	3	35	X X X X X X	X X X	9	A
34	1	6	34	X	X X X X X X	7	C
33	3	0	33	X X X		3	E
32	3	4	32	X X X	X X X X	7	*
31	1	2	31	X	X X	3	*
30	3	4	30	X X X	X X X X	7	*
29	4	3	29	X X X X	X X X	7	
28	1	0	28	X		1	
27	0	1	27		X	1	
26	3	0	26	X X X		3	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Brockton Avenue

Between: Judson Street - Wabash Avenue

Weather: Clear

Date: 9/8/21

Time From: 10:05

Time To: 10:50

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	16%	18%	15%
% In Pace:	76%	74%	73%
% Under Pace:	8%	8%	12%
Average Speed:	35 MPH	36 MPH	35 MPH
Pace Speed:	29 - 38 MPH	30 - 39 MPH	30 - 39 MPH
15th Percentile / Critical Speed:	29 MPH	30 MPH	30 MPH
50th Percentile / Critical Speed:	35 MPH	36 MPH	36 MPH
85th Percentile / Critical Speed:	39 MPH	40 MPH	39 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	1	47		X	1	
46	2	2	46	X X	X X	4	
45	1	3	45	X	X X X	4	
44	3	2	44	X X X	X X	5	
43	1	0	43	X		1	
42	2	4	42	X X	X X X X	6	*
41	3	3	41	X X X	X X X	6	*
40	4	0	40	X X X X		4	*
39	3	4	39	X X X	X X X X	7	
38	5	7	38	X X X X X	X X X X X X X	12	
37	8	4	37	X X X X X X X X	X X X X	12	
36	6	2	36	X X X X X X	X X	8	
35	1	4	35	X	X X X X	5	*
34	4	6	34	X X X X	X X X X X X	10	*
33	5	5	33	X X X X X	X X X X X	10	*
32	2	0	32	X X		2	
31	0	1	31		X	1	
30	0	2	30		X X	2	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Brookside Avenue

Between: Lakeside Avenue - Center Street

Weather: Clear

Date: 8/24/21

Time From: 9:00

Time To: 9:20

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	16%	15%
% In Pace:	82%	78%	80%
% Under Pace:	4%	6%	5%
Average Speed:	38 MPH	38 MPH	38 MPH
Pace Speed:	33 - 42 MPH	33 - 42 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	34 MPH	33 MPH	33 MPH
50th Percentile / Critical Speed:	37 MPH	38 MPH	37 MPH
85th Percentile / Critical Speed:	42 MPH	44 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	1	44		X	1	
43	0	1	43		X	1	
42	0	2	42		X X	2	
41	2	0	41	X X		2	
40	0	1	40		X	1	
39	1	4	39	X	X X X X	5	
38	2	3	38	X X	X X X	5	*
37	1	4	37	X	X X X X	5	*
36	9	5	36	X X X X X X X X X	X X X X X	14	*
35	4	5	35	X X X X	X X X X X	9	P
34	7	3	34	X X X X X X X	X X X	10	A
33	4	5	33	X X X X	X X X X X	9	C
32	3	0	32	X X X		3	E
31	4	1	31	X X X X	X	5	*
30	6	5	30	X X X X X X	X X X X X	11	*
29	2	5	29	X X	X X X X X	7	*
28	2	2	28	X X	X X	4	
27	1	3	27	X	X X X	4	
26	1	0	26	X		1	
25	0	0	25			0	
24	1	0	24	X		1	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Brookside Avenue

Between: Center Street - Eureka Street

Weather: Clear

Date: 8/24/21

Time From: 9:20

Time To: 9:40

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	6%	18%	12%
% In Pace:	84%	72%	78%
% Under Pace:	10%	10%	10%
Average Speed:	33 MPH	34 MPH	34 MPH
Pace Speed:	29 - 38 MPH	29 - 38 MPH	29 - 38 MPH
15th Percentile / Critical Speed:	30 MPH	29 MPH	29 MPH
50th Percentile / Critical Speed:	34 MPH	35 MPH	34 MPH
85th Percentile / Critical Speed:	36 MPH	39 MPH	38 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	0	0	43			0	
42	0	0	42			0	
41	0	1	41		X	1	
40	0	2	40		X X	2	
39	2	2	39	X X	X X	4	
38	2	3	38	X X	X X X	5	*
37	4	1	37	X X X X	X	5	*
36	2	3	36	X X	X X X	5	*
35	7	3	35	X X X X X X X	X X X	10	P
34	1	4	34	X	X X X X	5	A
33	3	3	33	X X X	X X X	6	C
32	6	3	32	X X X X X X	X X X	9	E
31	4	4	31	X X X X	X X X X	8	*
30	5	5	30	X X X X X	X X X X X	10	*
29	3	7	29	X X X	X X X X X X X	10	*
28	3	1	28	X X X	X	4	
27	3	1	27	X X X	X	4	
26	2	2	26	X X	X X	4	
25	1	3	25	X	X X X	4	
24	1	2	24	X	X X	3	
23	0	0	23			0	
22	1	0	22	X		1	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Vehicles Surveyed

Location: Cajon Street

Between: Vine Street - Fern Avenue

Weather: Clear

Date: 9/8/21

Time From: 12:55

Time To: 1:20

Existing Speed Limit: 25 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	8%	10%	7%
% In Pace:	76%	72%	73%
% Under Pace:	16%	18%	20%
Average Speed:	32 MPH	32 MPH	32 MPH
Pace Speed:	28 - 37 MPH	29 - 38 MPH	29 - 38 MPH
15th Percentile / Critical Speed:	27 MPH	27 MPH	27 MPH
50th Percentile / Critical Speed:	32 MPH	31 MPH	32 MPH
85th Percentile / Critical Speed:	37 MPH	38 MPH	37 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	0	1	43		X	1	
42	2	3	42	X X	X X X	5	
41	2	1	41	X X	X	3	
40	4	2	40	X X X X	X X	6	
39	4	2	39	X X X X	X X	6	*
38	2	3	38	X X	X X X	5	*
37	1	5	37	X	X X X X X	6	*
36	8	2	36	X X X X X X X X	X X	10	P
35	3	6	35	X X X	X X X X X X	9	A
34	3	6	34	X X X	X X X X X X	9	C
33	4	5	33	X X X X	X X X X X	9	E
32	4	3	32	X X X X	X X X	7	*
31	0	3	31		X X X	3	*
30	5	2	30	X X X X X	X X	7	*
29	1	2	29	X	X X	3	
28	3	2	28	X X X	X X	5	
27	2	1	27	X X	X	3	
26	2	0	26	X X		2	
25	0	0	25			0	
24	0	1	24		X	1	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Cajon Street

Between: Fern Avenue - Garden Street

Weather: Clear

Date: 9/8/21

Time From: 1:25

Time To: 1:45

Existing Speed Limit: 30 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	4%	10%	15%
% In Pace:	70%	74%	71%
% Under Pace:	26%	16%	14%
Average Speed:	34 MPH	35 MPH	35 MPH
Pace Speed:	32 - 41 MPH	31 - 40 MPH	30 - 39 MPH
15th Percentile / Critical Speed:	29 MPH	30 MPH	30 MPH
50th Percentile / Critical Speed:	35 MPH	34 MPH	35 MPH
85th Percentile / Critical Speed:	40 MPH	39 MPH	39 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	1	53		X	1	
52	1	1	52	X	X	2	
51	3	0	51	X X X		3	
50	0	1	50		X	1	
49	5	2	49	X X X X X	X X	7	
48	3	1	48	X X X	X	4	
47	0	3	47		X X X	3	
46	1	5	46	X	X X X X X	6	
45	3	2	45	X X X	X X	5	
44	1	1	44	X	X	2	
43	3	1	43	X X X	X	4	*
42	3	4	42	X X X	X X X X	7	*
41	5	3	41	X X X X X	X X X	8	*
40	2	2	40	X X	X X	4	*
39	3	6	39	X X X	X X X X X X	9	*
38	1	4	38	X	X X X X	5	*
37	5	2	37	X X X X X	X X	7	*
36	2	2	36	X X	X X	4	*
35	1	1	35	X	X	2	*
34	5	3	34	X X X X X	X X X	8	*
33	0	1	33		X	1	
32	2	2	32	X X	X X	4	
31	0	2	31		X X	2	
30	1	0	30	X		1	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: California Street

Between: Palmetto Avenue - Almond Avenue

Weather: Clear

Date: 9/8/21

Time From: 9:05

Time To: 10:00

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	34%	12%	34%
% In Pace:	60%	62%	58%
% Under Pace:	6%	26%	8%
Average Speed:	41 MPH	41 MPH	41 MPH
Pace Speed:	34 - 43 MPH	38 - 47 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	34 MPH	34 MPH	34 MPH
50th Percentile / Critical Speed:	41 MPH	40 MPH	41 MPH
85th Percentile / Critical Speed:	49 MPH	47 MPH	48 MPH

Radar Survey Conducted By:

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City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	1	0	51	X		1
50	1	2	50	X	X X	3
49	1	0	49	X		1
48	2	0	48	X X		2
47	3	0	47	X X X		3
46	2	2	46	X X	X X	4
45	4	2	45	X X X X	X X	6
44	4	2	44	X X X X	X X	6
43	4	5	43	X X X X	X X X X X	9
42	8	4	42	X X X X X X X X	X X X X	12
41	6	8	41	X X X X X X	X X X X X X X X	14
40	4	7	40	X X X X	X X X X X X X	11
39	1	9	39	X	X X X X X X X X X	10
38	5	4	38	X X X X X	X X X X	9
37	2	3	37	X X	X X X	5
36	2	0	36	X X		2
35	0	1	35		X	1
34	0	0	34			0
33	0	1	33		X	1
32	0	0	32			0
31	0	0	31			0
30	0	0	30			0
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

PACE *

Location: California Street

Between: Almond Avenue - Redlands Boulevard

Weather: Clear

Date: 8/31/21

Time From: 11:00

Time To: 11:20

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	10%	4%	10%
% In Pace:	82%	92%	86%
% Under Pace:	8%	4%	4%
Average Speed:	42 MPH	41 MPH	42 MPH
Pace Speed:	38 - 47 MPH	37 - 46 MPH	37 - 46 MPH
15th Percentile / Critical Speed:	38 MPH	38 MPH	38 MPH
50th Percentile / Critical Speed:	42 MPH	40 MPH	41 MPH
85th Percentile / Critical Speed:	47 MPH	44 MPH	45 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

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City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	1	0	46	X		1	
45	1	0	45	X		1	
44	2	1	44	X X	X	3	
43	0	0	43			0	
42	0	0	42			0	
41	2	1	41	X X	X	3	
40	3	1	40	X X X	X	4	*
39	5	3	39	X X X X X	X X X	8	*
38	7	1	38	X X X X X X X	X	8	*
37	5	1	37	X X X X X	X	6	
36	5	10	36	X X X X X	X X X X X X X X X X	15	
35	3	2	35	X X X	X X	5	
34	2	6	34	X X	X X X X X X	8	
33	2	9	33	X X	X X X X X X X X X	11	*
32	1	2	32	X	X X	3	*
31	2	2	31	X X	X X	4	*
30	3	1	30	X X X	X	4	
29	2	3	29	X X	X X X	5	
28	2	5	28	X X	X X X X X	7	
27	2	0	27	X X		2	
26	0	0	26			0	
25	0	2	25		X X	2	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Center Street

Between: State Street - Brookside Avenue

Weather: Clear

Date: 8/24/21

Time From: 10:50

Time To: 11:15

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	8%	14%	8%
% In Pace:	70%	82%	72%
% Under Pace:	22%	4%	20%
Average Speed:	36 MPH	34 MPH	35 MPH
Pace Speed:	32 - 41 MPH	28 - 37 MPH	31 - 40 MPH
15th Percentile / Critical Speed:	30 MPH	29 MPH	29 MPH
50th Percentile / Critical Speed:	37 MPH	34 MPH	35 MPH
85th Percentile / Critical Speed:	40 MPH	37 MPH	39 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	1	44		X	1
43	0	0	43			0
42	0	0	42			0
41	2	1	41	X X	X	3
40	0	2	40		X X	2
39	1	1	39	X	X	2
38	4	3	38	X X X X	X X X	7
37	5	4	37	X X X X X	X X X X	9
36	2	3	36	X X	X X X	5
35	6	2	35	X X X X X X	X X	8
34	6	6	34	X X X X X X	X X X X X X	12
33	6	6	33	X X X X X X	X X X X X X	12
32	3	5	32	X X X	X X X X X	8
31	3	5	31	X X X	X X X X X	8
30	2	2	30	X X	X X	4
29	2	5	29	X X	X X X X X	7
28	4	1	28	X X X X	X	5
27	2	2	27	X X	X X	4
26	1	0	26	X		1
25	0	1	25		X	1
24	0	0	24			0
23	0	0	23			0
22	1	0	22	X		1
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

PACE

Location: Center Street

Between: Brookside Avenue - Cypress Avenue

Weather: Clear

Date: 8/24/21

Time From: 10:20

Time To: 10:45

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	6%	10%	8%
% In Pace:	78%	82%	80%
% Under Pace:	16%	8%	12%
Average Speed:	33 MPH	33 MPH	33 MPH
Pace Speed:	29 - 38 MPH	29 - 38 MPH	29 - 38 MPH
15th Percentile / Critical Speed:	28 MPH	29 MPH	29 MPH
50th Percentile / Critical Speed:	34 MPH	33 MPH	33 MPH
85th Percentile / Critical Speed:	37 MPH	38 MPH	37 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	2	0	46	X X		2	
45	0	0	45			0	
44	1	2	44	X	X X	3	
43	2	0	43	X X		2	
42	6	0	42	X X X X X X		6	
41	2	0	41	X X		2	
40	1	6	40	X	X X X X X X	7	*
39	1	3	39	X	X X X	4	*
38	4	5	38	X X X X	X X X X X	9	*
37	3	2	37	X X X	X X	5	
36	3	4	36	X X X	X X X X	7	
35	6	5	35	X X X X X X	X X X X X	11	
34	2	5	34	X X	X X X X X	7	
33	5	3	33	X X X X X	X X X	8	*
32	3	4	32	X X X	X X X X	7	*
31	3	1	31	X X X	X	4	*
30	1	4	30	X	X X X X	5	
29	4	2	29	X X X X	X X	6	
28	1	3	28	X	X X X	4	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	1	24		X	1	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Center Street

Between: Cypress Avenue - Crescent Avenue

Weather: Clear

Date: 8/24/21

Time From: 9:55

Time To: 10:15

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	30%	4%	15%
% In Pace:	68%	76%	69%
% Under Pace:	2%	20%	16%
Average Speed:	36 MPH	35 MPH	36 MPH
Pace Speed:	29 - 38 MPH	31 - 40 MPH	31 - 40 MPH
15th Percentile / Critical Speed:	31 MPH	30 MPH	30 MPH
50th Percentile / Critical Speed:	36 MPH	35 MPH	35 MPH
85th Percentile / Critical Speed:	42 MPH	40 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	1	0	46	X		1	
45	0	0	45			0	
44	1	0	44	X		1	
43	2	0	43	X X		2	
42	1	0	42	X		1	
41	3	1	41	X X X	X	4	*
40	2	2	40	X X	X X	4	*
39	7	3	39	X X X X X X X	X X X	10	*
38	4	1	38	X X X X	X	5	P
37	2	7	37	X X	X X X X X X X	9	A
36	7	4	36	X X X X X X X	X X X X	11	C
35	1	4	35	X	X X X X	5	E
34	1	4	34	X	X X X X	5	*
33	4	6	33	X X X X	X X X X X X	10	*
32	4	5	32	X X X X	X X X X X	9	*
31	2	1	31	X X	X	3	
30	1	4	30	X	X X X X	5	
29	3	3	29	X X X	X X X	6	
28	1	0	28	X		1	
27	1	1	27	X	X	2	
26	2	2	26	X X	X X	4	
25	0	1	25		X	1	
24	0	1	24		X	1	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Vehicles Surveyed

Location: Center Street

Between: Crescent Avenue - Ridge Street

Weather: Clear

Date: 8/26/21

Time From: 9:00

Time To: 11:00

Existing Speed Limit: 30 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	10%	6%	5%
% In Pace:	70%	78%	72%
% Under Pace:	20%	16%	23%
Average Speed:	36 MPH	34 MPH	35 MPH
Pace Speed:	32 - 41 MPH	30 - 39 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	30 MPH	29 MPH	29 MPH
50th Percentile / Critical Speed:	36 MPH	34 MPH	35 MPH
85th Percentile / Critical Speed:	41 MPH	37 MPH	39 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	1	44		X	1	
43	0	1	43		X	1	
42	0	2	42		X X	2	
41	1	1	41	X	X	2	
40	0	1	40		X	1	
39	0	0	39			0	
38	2	2	38	X X	X X	4	
37	2	3	37	X X	X X X	5	
36	1	1	36	X	X	2	
35	2	5	35	X X	X X X X X	7	
34	2	1	34	X X	X	3	
33	2	2	33	X X	X X	4	*
32	5	7	32	X X X X X	X X X X X X X	12	*
31	3	3	31	X X X	X X X	6	*
30	2	3	30	X X	X X X	5	*
29	5	0	29	X X X X X		5	*
28	5	2	28	X X X X X	X X	7	*
27	5	4	27	X X X X X	X X X X	9	*
26	1	3	26	X	X X X	4	*
25	3	4	25	X X X	X X X X	7	*
24	4	2	24	X X X X	X X	6	*
23	2	1	23	X X	X	3	
22	3	1	22	X X X	X	4	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Central Avenue

Between: University Street - Judson Street

Weather: Clear

Date: 9/8/21

Time From: 12:05

Time To: 1:05

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	20%	24%	28%
% In Pace:	70%	60%	65%
% Under Pace:	10%	16%	7%
Average Speed:	29 MPH	32 MPH	31 MPH
Pace Speed:	24 - 33 MPH	26 - 35 MPH	24 - 33 MPH
15th Percentile / Critical Speed:	24 MPH	25 MPH	25 MPH
50th Percentile / Critical Speed:	29 MPH	32 MPH	30 MPH
85th Percentile / Critical Speed:	35 MPH	38 MPH	37 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	1	0	45	X		1	
44	0	0	44			0	
43	0	1	43		X	1	
42	3	2	42	X X X	X X	5	*
41	4	4	41	X X X X	X X X X	8	*
40	4	2	40	X X X X	X X	6	*
39	5	6	39	X X X X X	X X X X X X	11	
38	7	7	38	X X X X X X X	X X X X X X X	14	
37	6	12	37	X X X X X X	X X X X X X X X X X X X	18	
36	6	6	36	X X X X X X	X X X X X X	12	
35	4	3	35	X X X X	X X X	7	*
34	5	1	34	X X X X X	X	6	*
33	5	3	33	X X X X X	X X X	8	*
32	0	2	32		X X	2	
31	0	1	31		X	1	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Church Street

Between: Pioneer Avenue - Redlands Boulevard

Weather: Clear

Date: 9/8/21

Time From: 11:40

Time To: 12:00

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	2%	2%	2%
% In Pace:	98%	92%	95%
% Under Pace:	0%	6%	3%
Average Speed:	37 MPH	37 MPH	37 MPH
Pace Speed:	33 - 42 MPH	33 - 42 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	34 MPH	35 MPH	34 MPH
50th Percentile / Critical Speed:	37 MPH	37 MPH	37 MPH
85th Percentile / Critical Speed:	41 MPH	40 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	0	0	43			0	
42	0	0	42			0	
41	0	0	41			0	
40	0	0	40			0	
39	0	0	39			0	
38	0	0	38			0	
37	1	0	37	X		1	
36	4	1	36	X X X X	X	5	*
35	1	2	35	X	X X	3	*
34	3	5	34	X X X	X X X X X	8	*
33	3	5	33	X X X	X X X X X	8	P
32	3	6	32	X X X	X X X X X X	9	A
31	7	12	31	X X X X X X X	X X X X X X X X X X X X	19	C
30	7	8	30	X X X X X X X	X X X X X X X X	15	E
29	6	4	29	X X X X X X	X X X X	10	*
28	4	6	28	X X X X	X X X X X X	10	*
27	3	0	27	X X X		3	*
26	4	0	26	X X X X		4	
25	3	1	25	X X X	X	4	
24	0	0	24			0	
23	1	0	23	X		1	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Citrus Avenue

Between: Eureka Street - Orange Street

Weather: Clear

Date: 1/11/22

Time From: 9:25

Time To: 9:45

Existing Speed Limit: 25 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	12%	0%	1%
% In Pace:	86%	98%	90%
% Under Pace:	2%	2%	9%
Average Speed:	30 MPH	31 MPH	31 MPH
Pace Speed:	25 - 34 MPH	28 - 37 MPH	27 - 36 MPH
15th Percentile / Critical Speed:	26 MPH	29 MPH	28 MPH
50th Percentile / Critical Speed:	30 MPH	31 MPH	31 MPH
85th Percentile / Critical Speed:	34 MPH	34 MPH	34 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	0	0	43			0
42	0	0	42			0
41	0	0	41			0
40	1	0	40	X		1
39	0	1	39		X	1
38	0	0	38			0
37	1	0	37	X		1
36	3	3	36	X X X	X X X	6
35	4	2	35	X X X X	X X	6
34	3	0	34	X X X		3
33	0	2	33		X X	2
32	7	9	32	X X X X X X X	X X X X X X X X X	16
31	8	5	31	X X X X X X X X	X X X X X	13
30	1	5	30	X	X X X X X	6
29	3	4	29	X X X	X X X X	7
28	4	4	28	X X X X	X X X X	8
27	5	3	27	X X X X X	X X X	8
26	4	6	26	X X X X	X X X X X X	10
25	4	3	25	X X X X	X X X	7
24	2	1	24	X X	X	3
23	0	1	23		X	1
22	0	0	22			0
21	0	1	21		X	1
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

Location: Citrus Avenue

Between: Redlands Boulevard - University Street

Weather: Clear

Date: 1/11/22

Time From: 9:45

Time To: 10:05

Existing Speed Limit: 25 MPH

PACE

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	12%	15%
% In Pace:	78%	84%	80%
% Under Pace:	12%	4%	5%
Average Speed:	30 MPH	30 MPH	30 MPH
Pace Speed:	26 - 35 MPH	24 - 33 MPH	25 - 34 MPH
15th Percentile / Critical Speed:	26 MPH	26 MPH	26 MPH
50th Percentile / Critical Speed:	31 MPH	30 MPH	30 MPH
85th Percentile / Critical Speed:	35 MPH	33 MPH	34 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Vehicles Surveyed: Eastbound	Vehicles Surveyed: Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	1	0	50	X		1
49	0	0	49			0
48	1	1	48	X	X	2
47	2	1	47	X X	X	3
46	1	0	46	X		1
45	1	0	45	X		1
44	2	0	44	X X		2
43	2	1	43	X X	X	3
42	2	4	42	X X	X X X X	6
41	3	3	41	X X X	X X X	6
40	3	6	40	X X X	X X X X X X	9
39	3	4	39	X X X	X X X X	7
38	4	9	38	X X X X	X X X X X X X X X	13
37	4	2	37	X X X X	X X	6
36	3	6	36	X X X	X X X X X X	9
35	2	6	35	X X	X X X X X X	8
34	6	4	34	X X X X X X	X X X X	10
33	3	0	33	X X X		3
32	5	2	32	X X X X X	X X	7
31	2	1	31	X X	X	3
30	0	0	30			0
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Location: Citrus Avenue

Between: University Street - Wabash Avenue

Weather: Clear

Date: 9/8/21

Time From: 12:35

Time To: 12:55

Existing Speed Limit: 40 MPH

PACE	Eastbound	Westbound	Combined Statistics
% Over Pace:	24%	4%	19%
% In Pace:	72%	90%	78%
% Under Pace:	4%	6%	3%
Average Speed:	38 MPH	38 MPH	38 MPH
Pace Speed:	32 - 41 MPH	34 - 43 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	33 MPH	35 MPH	34 MPH
50th Percentile / Critical Speed:	37 MPH	38 MPH	38 MPH
85th Percentile / Critical Speed:	44 MPH	41 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	1	48		X	1	
47	0	0	47			0	
46	0	1	46		X	1	
45	1	4	45	X	X X X X	5	
44	4	1	44	X X X X	X	5	
43	4	1	43	X X X X	X	5	
42	2	2	42	X X	X X	4	*
41	3	3	41	X X X	X X X	6	*
40	2	6	40	X X	X X X X X X	8	*
39	4	3	39	X X X X	X X X	7	
38	4	3	38	X X X X	X X X	7	
37	2	7	37	X X	X X X X X X X	9	
36	4	3	36	X X X X	X X X	7	
35	2	4	35	X X	X X X X	6	*
34	8	4	34	X X X X X X X X	X X X X	12	*
33	4	3	33	X X X X	X X X	7	*
32	1	3	32	X	X X X	4	
31	2	1	31	X X	X	3	
30	0	0	30			0	
29	3	0	29	X X X		3	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Colton Avenue

Between: Redlands Boulevard - Church Street

Weather: Clear

Date: 8/31/21

Time From: 10:30

Time To: 10:50

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	20%	17%
% In Pace:	70%	78%	73%
% Under Pace:	20%	2%	10%
Average Speed:	37 MPH	38 MPH	38 MPH
Pace Speed:	34 - 43 MPH	32 - 41 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	33 MPH	34 MPH	33 MPH
50th Percentile / Critical Speed:	37 MPH	37 MPH	37 MPH
85th Percentile / Critical Speed:	43 MPH	43 MPH	43 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	2	0	45	X X		2	
44	0	2	44		X X	2	
43	1	0	43	X		1	
42	3	2	42	X X X	X X	5	*
41	2	3	41	X X	X X X	5	*
40	3	4	40	X X X	X X X X	7	*
39	4	6	39	X X X X	X X X X X X	10	
38	2	4	38	X X	X X X X	6	
37	6	3	37	X X X X X X	X X X	9	
36	8	5	36	X X X X X X X X	X X X X X	13	
35	5	7	35	X X X X X	X X X X X X X	12	*
34	4	5	34	X X X X	X X X X X	9	*
33	4	3	33	X X X X	X X X	7	*
32	2	0	32	X X		2	
31	3	2	31	X X X	X X	5	
30	0	2	30		X X	2	
29	1	1	29	X	X	2	
28	0	1	28		X	1	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Colton Avenue

Between: Church Street - Grove Street

Weather: Clear

Date: 9/2/21

Time From: 2:00

Time To: 2:20

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	6%	4%	5%
% In Pace:	82%	84%	83%
% Under Pace:	12%	12%	12%
Average Speed:	37 MPH	37 MPH	37 MPH
Pace Speed:	33 - 42 MPH	33 - 42 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	33 MPH	33 MPH	33 MPH
50th Percentile / Critical Speed:	36 MPH	36 MPH	36 MPH
85th Percentile / Critical Speed:	41 MPH	40 MPH	41 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	1	3	50	X	X X X	4	
49	0	1	49		X	1	
48	3	5	48	X X X	X X X X X	8	
47	1	2	47	X	X X	3	
46	0	1	46		X	1	
45	5	4	45	X X X X X	X X X X	9	*
44	7	5	44	X X X X X X X	X X X X X	12	*
43	0	4	43		X X X X	4	*
42	9	5	42	X X X X X X X X X	X X X X X	14	P
41	3	8	41	X X X	X X X X X X X X	11	A
40	5	1	40	X X X X X	X	6	C
39	4	2	39	X X X X	X X	6	E
38	8	4	38	X X X X X X X X	X X X X	12	*
37	0	2	37		X X	2	*
36	2	1	36	X X	X	3	*
35	1	1	35	X	X	2	
34	0	0	34			0	
33	1	1	33	X	X	2	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Colton Avenue

Between: Grove Street - Lincoln Street

Weather: Clear

Date: 8/31/21

Time From: 10:05

Time To: 10:30

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	0%	17%
% In Pace:	86%	76%	79%
% Under Pace:	4%	24%	4%
Average Speed:	42 MPH	43 MPH	42 MPH
Pace Speed:	36 - 45 MPH	41 - 50 MPH	36 - 45 MPH
15th Percentile / Critical Speed:	38 MPH	38 MPH	38 MPH
50th Percentile / Critical Speed:	42 MPH	42 MPH	42 MPH
85th Percentile / Critical Speed:	45 MPH	48 MPH	47 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	1	53		X	1
52	0	1	52		X	1
51	2	3	51	X X	X X X	5
50	0	1	50		X	1
49	1	2	49	X	X X	3
48	3	3	48	X X X	X X X	6
47	2	3	47	X X	X X X	5
46	2	1	46	X X	X	3
45	3	2	45	X X X	X X	5
44	3	5	44	X X X	X X X X X	8
43	5	4	43	X X X X X	X X X X	9
42	3	5	42	X X X	X X X X X	8
41	4	4	41	X X X X	X X X X	8
40	2	6	40	X X	X X X X X X	8
39	4	3	39	X X X X	X X X	7
38	1	2	38	X	X X	3
37	3	1	37	X X X	X	4
36	1	2	36	X	X X	3
35	4	1	35	X X X X	X	5
34	3	0	34	X X X		3
33	2	0	33	X X		2
32	1	0	32	X		1
31	0	0	31			0
30	1	0	30	X		1
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

PACE

Location: Colton Avenue

Between: Dearborn Street - Wabash Avenue

Weather: Clear

Date: 9/8/21

Time From: 11:25

Time To: 11:50

Existing Speed Limit: 40 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	6%	16%	11%
% In Pace:	62%	72%	67%
% Under Pace:	32%	12%	22%
Average Speed:	41 MPH	43 MPH	42 MPH
Pace Speed:	39 - 48 MPH	39 - 48 MPH	39 - 48 MPH
15th Percentile / Critical Speed:	35 MPH	39 MPH	36 MPH
50th Percentile / Critical Speed:	41 MPH	43 MPH	42 MPH
85th Percentile / Critical Speed:	47 MPH	49 MPH	48 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	1	47		X	1	
46	1	0	46	X		1	
45	0	0	45			0	
44	0	0	44			0	
43	0	1	43		X	1	
42	3	2	42	X X X	X X	5	
41	1	2	41	X	X X	3	
40	3	5	40	X X X	X X X X X	8	*
39	1	4	39	X	X X X X	5	*
38	2	4	38	X X	X X X X	6	*
37	7	9	37	X X X X X X X	X X X X X X X X X	16	P
36	1	4	36	X	X X X X	5	A
35	6	3	35	X X X X X X	X X X	9	C
34	9	5	34	X X X X X X X X X	X X X X X	14	E
33	1	1	33	X	X	2	*
32	5	3	32	X X X X X	X X X	8	*
31	3	2	31	X X X	X X	5	*
30	2	1	30	X X	X	3	
29	1	2	29	X	X X	3	
28	3	1	28	X X X	X	4	
27	1	0	27	X		1	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Crescent Avenue

Between: Ramona Drive - Serpentine Drive

Weather: Clear

Date: 9/9/21

Time From: 10:50

Time To: 11:10

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	8%	11%
% In Pace:	76%	80%	78%
% Under Pace:	14%	12%	11%
Average Speed:	35 MPH	36 MPH	36 MPH
Pace Speed:	31 - 40 MPH	32 - 41 MPH	31 - 40 MPH
15th Percentile / Critical Speed:	31 MPH	32 MPH	31 MPH
50th Percentile / Critical Speed:	34 MPH	37 MPH	36 MPH
85th Percentile / Critical Speed:	40 MPH	40 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	1	0	43	X		1
42	0	0	42			0
41	1	0	41	X		1
40	1	1	40	X	X	2
39	1	4	39	X	X X X X	5
38	2	0	38	X X		2
37	3	4	37	X X X	X X X X	7
36	2	3	36	X X	X X X	5
35	2	2	35	X X	X X	4
34	3	6	34	X X X	X X X X X X	9
33	3	4	33	X X X	X X X X	7
32	6	3	32	X X X X X X	X X X	9
31	3	2	31	X X X	X X	5
30	0	2	30		X X	2
29	3	1	29	X X X	X	4
28	3	3	28	X X X	X X X	6
27	1	4	27	X	X X X X	5
26	2	0	26	X X		2
25	2	4	25	X X	X X X X	6
24	5	0	24	X X X X X		5
23	1	1	23	X	X	2
22	2	0	22	X X		2
21	1	0	21	X		1
20	0	2	20		X X	2
19	1	0	19	X		1
18	1	1	18	X	X	2
17	0	2	17		X X	2
16	0	1	16		X	1
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

PACE

Location: Crestview Road

Between: Ford Street - Buckingham Drive

Weather: Clear

Date: 9/8/21

Time From: 9:00

Time To: 2:10

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	12%	2%	11%
% In Pace:	56%	60%	58%
% Under Pace:	32%	38%	31%
Average Speed:	30 MPH	31 MPH	31 MPH
Pace Speed:	28 - 37 MPH	30 - 39 MPH	28 - 37 MPH
15th Percentile / Critical Speed:	24 MPH	25 MPH	24 MPH
50th Percentile / Critical Speed:	31 MPH	32 MPH	32 MPH
85th Percentile / Critical Speed:	37 MPH	37 MPH	37 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	1	48		X	1	
47	0	1	47		X	1	
46	2	0	46	X X		2	
45	0	1	45		X	1	
44	1	4	44	X	X X X X	5	*
43	5	2	43	X X X X X	X X	7	*
42	2	1	42	X X	X	3	*
41	6	6	41	X X X X X X	X X X X X X	12	*
40	3	2	40	X X X	X X	5	*
39	7	2	39	X X X X X X X	X X	9	*
38	2	8	38	X X	X X X X X X X X	10	*
37	7	5	37	X X X X X X X	X X X X X	12	*
36	4	3	36	X X X X	X X X	7	*
35	6	4	35	X X X X X X	X X X X	10	*
34	1	1	34	X	X	2	
33	4	4	33	X X X X	X X X X	8	
32	0	2	32		X X	2	
31	0	1	31		X	1	
30	0	2	30		X X	2	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Cypress Avenue

Between: Terracina Boulevard - Center Street

Weather: Clear

Date: 8/24/21

Time From: 12:00

Time To: 12:40

Existing Speed Limit: 40 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	4%	6%	5%
% In Pace:	86%	74%	80%
% Under Pace:	10%	20%	15%
Average Speed:	39 MPH	38 MPH	38 MPH
Pace Speed:	35 - 44 MPH	35 - 44 MPH	35 - 44 MPH
15th Percentile / Critical Speed:	35 MPH	33 MPH	34 MPH
50th Percentile / Critical Speed:	39 MPH	38 MPH	38 MPH
85th Percentile / Critical Speed:	43 MPH	43 MPH	43 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	1	51		X	1	
50	0	1	50		X	1	
49	0	0	49			0	
48	1	0	48	X		1	
47	1	5	47	X	X X X X X	6	
46	0	0	46			0	
45	5	0	45	X X X X X		5	
44	1	3	44	X	X X X	4	
43	1	2	43	X	X X	3	*
42	4	2	42	X X X X	X X	6	*
41	2	5	41	X X	X X X X X	7	*
40	6	4	40	X X X X X X	X X X X	10	*
39	3	4	39	X X X	X X X X	7	*
38	6	6	38	X X X X X X	X X X X X X	12	*
37	3	6	37	X X X	X X X X X X	9	*
36	5	4	36	X X X X X	X X X X	9	*
35	3	3	35	X X X	X X X	6	*
34	3	4	34	X X X	X X X X	7	*
33	2	0	33	X X		2	
32	3	0	32	X X X		3	
31	1	0	31	X		1	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Cypress Avenue

Between: Center Street - Redlands Boulevard

Weather: Clear

Date: 8/24/21

Time From: 12:45

Time To: 1:05

Existing Speed Limit: 45 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	18%	20%	18%
% In Pace:	74%	80%	76%
% Under Pace:	8%	0%	6%
Average Speed:	39 MPH	40 MPH	39 MPH
Pace Speed:	33 - 42 MPH	34 - 43 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	34 MPH	36 MPH	35 MPH
50th Percentile / Critical Speed:	38 MPH	39 MPH	39 MPH
85th Percentile / Critical Speed:	44 MPH	44 MPH	44 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	2	1	50	X X	X	3
49	1	0	49	X		1
48	0	1	48		X	1
47	0	0	47			0
46	2	1	46	X X	X	3
45	2	3	45	X X	X X X	5
44	1	1	44	X	X	2
43	3	2	43	X X X	X X	5
42	2	0	42	X X		2
41	8	4	41	X X X X X X X X	X X X X	12
40	2	4	40	X X	X X X X	6
39	3	6	39	X X X	X X X X X X	9
38	1	2	38	X	X X	3
37	6	4	37	X X X X X X	X X X X	10
36	3	4	36	X X X	X X X X	7
35	3	4	35	X X X	X X X X	7
34	2	1	34	X X	X	3
33	1	6	33	X	X X X X X X	7
32	2	3	32	X X	X X X	5
31	3	1	31	X X X	X	4
30	0	0	30			0
29	1	1	29	X	X	2
28	2	1	28	X X	X	3
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Location: Cypress Avenue

Between: Redlands Boulevard - Citrus Avenue

Weather: Clear

Date: 8/24/21

Time From: 1:05

Time To: 1:25

Existing Speed Limit: 40 MPH

PACE	Eastbound	Westbound	Combined Statistics
% Over Pace:	16%	18%	22%
% In Pace:	66%	76%	69%
% Under Pace:	18%	6%	9%
Average Speed:	39 MPH	38 MPH	38 MPH
Pace Speed:	34 - 43 MPH	32 - 41 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	32 MPH	33 MPH	33 MPH
50th Percentile / Critical Speed:	39 MPH	37 MPH	38 MPH
85th Percentile / Critical Speed:	44 MPH	43 MPH	43 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	1	49		X	1	
48	0	0	48			0	
47	2	1	47	X X	X	3	
46	2	4	46	X X	X X X X	6	
45	0	2	45		X X	2	
44	1	1	44	X	X	2	
43	1	3	43	X	X X X	4	*
42	3	3	42	X X X	X X X	6	*
41	2	4	41	X X	X X X X	6	*
40	5	6	40	X X X X X	X X X X X X	11	
39	4	2	39	X X X X	X X	6	
38	1	4	38	X	X X X X	5	
37	4	4	37	X X X X	X X X X	8	
36	5	3	36	X X X X X	X X X	8	*
35	7	2	35	X X X X X X X	X X	9	*
34	3	5	34	X X X	X X X X X	8	*
33	2	1	33	X X	X	3	
32	2	1	32	X X	X	3	
31	3	1	31	X X X	X	4	
30	1	1	30	X	X	2	
29	2	1	29	X X	X	3	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Dearborn Street

Between: Fifth Avenue - Colton Avenue

Weather: Clear

Date: 9/8/21

Time From: 11:55

Time To: 12:30

Existing Speed Limit: 30 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	12%	18%	14%
% In Pace:	72%	72%	71%
% Under Pace:	16%	10%	15%
Average Speed:	37 MPH	39 MPH	38 MPH
Pace Speed:	33 - 42 MPH	34 - 43 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	32 MPH	34 MPH	33 MPH
50th Percentile / Critical Speed:	36 MPH	39 MPH	38 MPH
85th Percentile / Critical Speed:	42 MPH	45 MPH	43 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	0	1	43		X	1
42	0	1	42		X	1
41	0	1	41		X	1
40	1	2	40	X	X X	3
39	1	1	39	X	X	2
38	1	3	38	X	X X X	4
37	1	2	37	X	X X	3
36	3	1	36	X X X	X	4
35	1	7	35	X	X X X X X X X	8
34	4	5	34	X X X X	X X X X X	9
33	3	5	33	X X X	X X X X X	8
32	8	6	32	X X X X X X X X	X X X X X X	14
31	7	7	31	X X X X X X X	X X X X X X X	14
30	4	1	30	X X X X	X	5
29	5	2	29	X X X X X	X X	7
28	5	0	28	X X X X X		5
27	2	2	27	X X	X X	4
26	1	2	26	X	X X	3
25	1	0	25	X		1
24	2	1	24	X X	X	3
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

PACE

Location: Dearborn Street

Between: Colton Avenue - Lugonia Avenue

Weather: Clear

Date: 9/8/21

Time From: 10:50

Time To: 11:20

Existing Speed Limit: 30 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	8%	6%	15%
% In Pace:	84%	78%	78%
% Under Pace:	8%	16%	7%
Average Speed:	31 MPH	34 MPH	32 MPH
Pace Speed:	27 - 36 MPH	31 - 40 MPH	27 - 36 MPH
15th Percentile / Critical Speed:	28 MPH	30 MPH	28 MPH
50th Percentile / Critical Speed:	31 MPH	33 MPH	32 MPH
85th Percentile / Critical Speed:	35 MPH	38 MPH	36 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	1	54		X	1
53	1	1	53	X	X	2
52	1	0	52	X		1
51	1	2	51	X	X X	3
50	2	1	50	X X	X	3
49	0	2	49		X X	2
48	5	2	48	X X X X X	X X	7
47	1	0	47	X		1
46	2	4	46	X X	X X X X	6
45	3	1	45	X X X	X	4
44	0	5	44		X X X X X	5
43	2	3	43	X X	X X X	5
42	3	2	42	X X X	X X	5
41	3	5	41	X X X	X X X X X	8
40	6	6	40	X X X X X X	X X X X X X	12
39	5	1	39	X X X X X	X	6
38	2	4	38	X X	X X X X	6
37	4	3	37	X X X X	X X X	7
36	0	2	36		X X	2
35	2	1	35	X X	X	3
34	1	1	34	X	X	2
33	0	1	33		X	1
32	3	1	32	X X X	X	4
31	1	0	31	X		1
30	2	1	30	X X	X	3
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

* * * PACE * * *

Location: Dearborn Street

Between: Lugonia Avenue - San Bernardino Avenue

Weather: Clear

Date: 9/2/21

Time From: 2:40

Time To: 3:45

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	10%	18%	20%
% In Pace:	60%	68%	64%
% Under Pace:	30%	14%	16%
Average Speed:	41 MPH	42 MPH	42 MPH
Pace Speed:	39 - 48 MPH	37 - 46 MPH	37 - 46 MPH
15th Percentile / Critical Speed:	35 MPH	37 MPH	36 MPH
50th Percentile / Critical Speed:	40 MPH	41 MPH	41 MPH
85th Percentile / Critical Speed:	48 MPH	48 MPH	48 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	1	48		X	1
47	1	0	47	X		1
46	0	1	46		X	1
45	1	0	45	X		1
44	0	0	44			0
43	1	2	43	X	X X	3
42	1	2	42	X	X X	3
41	2	2	41	X X	X X	4
40	4	2	40	X X X X	X X	6
39	2	4	39	X X	X X X X	6
38	2	3	38	X X	X X X	5
37	6	2	37	X X X X X X	X X	8
36	2	4	36	X X	X X X X	6
35	5	3	35	X X X X X	X X X	8
34	2	4	34	X X	X X X X	6
33	3	1	33	X X X	X	4
32	5	3	32	X X X X X	X X X	8
31	2	4	31	X X	X X X X	6
30	3	3	30	X X X	X X X	6
29	2	1	29	X X	X	3
28	2	3	28	X X	X X X	5
27	1	1	27	X	X	2
26	1	0	26	X		1
25	0	2	25		X X	2
24	1	2	24	X	X X	3
23	1	0	23	X		1
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Location: Dearborn Street

Between: San Bernardino Avenue - Sessums Drive

Weather: Clear

Date: 8/31/21

Time From: 2:30

Time To: 3:45

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	8%	20%	14%
% In Pace:	66%	62%	63%
% Under Pace:	26%	18%	23%
Average Speed:	35 MPH	35 MPH	35 MPH
Pace Speed:	32 - 41 MPH	30 - 39 MPH	31 - 40 MPH
15th Percentile / Critical Speed:	29 MPH	28 MPH	29 MPH
50th Percentile / Critical Speed:	35 MPH	35 MPH	35 MPH
85th Percentile / Critical Speed:	40 MPH	41 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	2	0	55	X X		2
54	0	1	54		X	1
53	1	1	53	X	X	2
52	1	2	52	X	X X	3
51	1	0	51	X		1
50	2	2	50	X X	X X	4
49	1	1	49	X	X	2
48	1	2	48	X	X X	3
47	3	3	47	X X X	X X X	6
46	3	3	46	X X X	X X X	6
45	4	3	45	X X X X	X X X	7
44	5	6	44	X X X X X	X X X X X X	11
43	6	3	43	X X X X X X	X X X	9
42	2	6	42	X X	X X X X X X	8
41	2	3	41	X X	X X X	5
40	3	0	40	X X X		3
39	4	4	39	X X X X	X X X X	8
38	1	0	38	X		1
37	0	2	37		X X	2
36	3	0	36	X X X		3
35	2	2	35	X X	X X	4
34	2	2	34	X X	X X	4
33	0	0	33			0
32	1	1	32	X	X	2
31	0	1	31		X	1
30	0	0	30			0
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	48			GRAND TOTALS	98

Vehicles Surveyed

PACE

Location: Elizabeth Street

Between: Garden Street - Crescent Avenue

Weather: Clear

Date: 9/8/21

Time From: 2:30

Time To: 3:30

Existing Speed Limit: 40 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	16%	15%	15%
% In Pace:	66%	69%	67%
% Under Pace:	18%	17%	17%
Average Speed:	43 MPH	43 MPH	43 MPH
Pace Speed:	39 - 48 MPH	39 - 48 MPH	39 - 48 MPH
15th Percentile / Critical Speed:	36 MPH	37 MPH	37 MPH
50th Percentile / Critical Speed:	43 MPH	43 MPH	43 MPH
85th Percentile / Critical Speed:	49 MPH	48 MPH	49 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	1	0	48	X		1	
47	2	0	47	X X		2	
46	1	0	46	X		1	
45	0	0	45			0	
44	1	0	44	X		1	
43	1	2	43	X	X X	3	
42	0	4	42		X X X X	4	
41	3	3	41	X X X	X X X	6	*
40	3	3	40	X X X	X X X	6	*
39	1	3	39	X	X X X	4	*
38	7	3	38	X X X X X X X	X X X	10	
37	4	7	37	X X X X	X X X X X X X	11	
36	4	5	36	X X X X	X X X X X	9	
35	7	5	35	X X X X X X X	X X X X X	12	
34	2	6	34	X X	X X X X X X	8	*
33	3	4	33	X X X	X X X X	7	*
32	3	3	32	X X X	X X X	6	*
31	3	1	31	X X X	X	4	
30	0	0	30			0	
29	1	0	29	X		1	
28	2	1	28	X X	X	3	
27	0	0	27			0	
26	1	0	26	X		1	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Fern Avenue

Between: Redlands Boulevard - Cajon Street

Weather: Clear

Date: 8/24/21

Time From: 3:15

Time To: 3:40

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	12%	4%	12%
% In Pace:	74%	86%	79%
% Under Pace:	14%	10%	9%
Average Speed:	37 MPH	37 MPH	37 MPH
Pace Speed:	32 - 41 MPH	33 - 42 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	32 MPH	33 MPH	32 MPH
50th Percentile / Critical Speed:	36 MPH	36 MPH	36 MPH
85th Percentile / Critical Speed:	41 MPH	41 MPH	41 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	1	1	43	X	X	2	
42	1	0	42	X		1	
41	0	1	41		X	1	
40	1	1	40	X	X	2	
39	4	3	39	X X X X	X X X	7	*
38	6	2	38	X X X X X X	X X	8	*
37	2	1	37	X X	X	3	*
36	5	6	36	X X X X X	X X X X X X	11	P
35	5	8	35	X X X X X	X X X X X X X X	13	A
34	3	4	34	X X X	X X X X	7	C
33	5	6	33	X X X X X	X X X X X X	11	E
32	6	4	32	X X X X X X	X X X X	10	*
31	2	3	31	X X	X X X	5	*
30	1	2	30	X	X X	3	*
29	1	3	29	X	X X X	4	
28	2	2	28	X X	X X	4	
27	2	1	27	X X	X	3	
26	0	2	26		X X	2	
25	0	0	25			0	
24	1	0	24	X		1	
23	2	0	23	X X		2	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Fern Avenue

Between: Cajon Street - Center Street

Weather: Clear

Date: 8/24/21

Time From: 2:55

Time To: 3:15

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	4%	6%	6%
% In Pace:	78%	78%	78%
% Under Pace:	18%	16%	16%
Average Speed:	34 MPH	34 MPH	34 MPH
Pace Speed:	31 - 40 MPH	30 - 39 MPH	30 - 39 MPH
15th Percentile / Critical Speed:	29 MPH	29 MPH	29 MPH
50th Percentile / Critical Speed:	35 MPH	34 MPH	34 MPH
85th Percentile / Critical Speed:	38 MPH	38 MPH	38 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	1	50		X	1
49	0	0	49			0
48	1	2	48	X	X X	3
47	3	0	47	X X X		3
46	1	4	46	X	X X X X	5
45	1	1	45	X	X	2
44	3	3	44	X X X	X X X	6
43	2	3	43	X X	X X X	5
42	4	4	42	X X X X	X X X X	8
41	3	4	41	X X X	X X X X	7
40	0	5	40		X X X X X	5
39	2	5	39	X X	X X X X X	7
38	6	0	38	X X X X X X		6
37	2	4	37	X X	X X X X	6
36	2	5	36	X X	X X X X X	7
35	7	2	35	X X X X X X X	X X	9
34	3	2	34	X X X	X X	5
33	4	1	33	X X X X	X	5
32	1	0	32	X		1
31	2	0	31	X X		2
30	1	2	30	X	X X	3
29	1	1	29	X	X	2
28	1	1	28	X	X	2
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Location: Fern Avenue

Between: Center Street - San Mateo Street

Weather: Clear

Date: 8/24/21

Time From: 1:35

Time To: 2:05

Existing Speed Limit: 35 MPH

* PACE *

	Eastbound	Westbound	Combined Statistics
% Over Pace:	22%	16%	14%
% In Pace:	66%	70%	66%
% Under Pace:	12%	14%	20%
Average Speed:	38 MPH	40 MPH	39 MPH
Pace Speed:	33 - 42 MPH	35 - 44 MPH	35 - 44 MPH
15th Percentile / Critical Speed:	33 MPH	35 MPH	33 MPH
50th Percentile / Critical Speed:	38 MPH	40 MPH	39 MPH
85th Percentile / Critical Speed:	44 MPH	45 MPH	44 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	1	46		X	1	
45	0	1	45		X	1	
44	2	0	44	X X		2	
43	2	0	43	X X		2	
42	1	1	42	X	X	2	
41	1	1	41	X	X	2	
40	2	1	40	X X	X	3	
39	1	2	39	X	X X	3	
38	0	6	38		X X X X X X	6	*
37	3	3	37	X X X	X X X	6	*
36	7	3	36	X X X X X X X	X X X	10	*
35	3	7	35	X X X	X X X X X X X	10	*
34	8	3	34	X X X X X X X X	X X X	11	*
33	2	4	33	X X	X X X X	6	*
32	3	2	32	X X X	X X	5	*
31	3	4	31	X X X	X X X X	7	*
30	4	5	30	X X X X	X X X X X	9	*
29	6	2	29	X X X X X X	X X	8	*
28	1	0	28	X		1	
27	1	3	27	X	X X X	4	
26	0	0	26			0	
25	0	1	25		X	1	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Fern Avenue

Between: San Mateo Street - Terracina Boulevard

Weather: Clear

Date: 8/24/21

Time From: 2:05

Time To: 2:55

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	18%	10%	16%
% In Pace:	80%	78%	78%
% Under Pace:	2%	12%	6%
Average Speed:	34 MPH	34 MPH	34 MPH
Pace Speed:	28 - 37 MPH	30 - 39 MPH	29 - 38 MPH
15th Percentile / Critical Speed:	29 MPH	30 MPH	30 MPH
50th Percentile / Critical Speed:	34 MPH	35 MPH	34 MPH
85th Percentile / Critical Speed:	40 MPH	38 MPH	39 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	1	0	56	X		1
55	0	0	55			0
54	2	0	54	X X		2
53	1	1	53	X	X	2
52	0	2	52		X X	2
51	2	3	51	X X	X X X	5
50	1	4	50	X	X X X X	5
49	0	2	49		X X	2
48	4	4	48	X X X X	X X X X	8
47	4	2	47	X X X X	X X	6
46	2	5	46	X X	X X X X X	7
45	4	3	45	X X X X	X X X	7
44	5	5	44	X X X X X	X X X X X	10
43	7	1	43	X X X X X X X	X	8
42	4	6	42	X X X X	X X X X X X	10
41	3	3	41	X X X	X X X	6
40	3	2	40	X X X	X X	5
39	1	3	39	X	X X X	4
38	4	2	38	X X X X	X X	6
37	2	0	37	X X		2
36	0	1	36		X	1
35	0	1	35		X	1
34	0	0	34			0
33	0	0	33			0
32	0	0	32			0
31	0	0	31			0
30	0	0	30			0
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

PACE

Location: Fifth Avenue

Between: Ford Street - Dearborn Street

Weather: Clear

Date: 8/26/21

Time From: 3:20

Time To: 4:00

Existing Speed Limit: 45 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	6%	19%
% In Pace:	74%	70%	71%
% Under Pace:	12%	24%	10%
Average Speed:	44 MPH	45 MPH	45 MPH
Pace Speed:	39 - 48 MPH	42 - 51 MPH	39 - 48 MPH
15th Percentile / Critical Speed:	40 MPH	40 MPH	40 MPH
50th Percentile / Critical Speed:	44 MPH	45 MPH	44 MPH
85th Percentile / Critical Speed:	48 MPH	50 MPH	50 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	1	55		X	1
54	1	0	54	X		1
53	1	1	53	X	X	2
52	1	1	52	X	X	2
51	0	4	51		X X X X	4
50	0	2	50		X X	2
49	2	2	49	X X	X X	4
48	4	1	48	X X X X	X	5
47	5	1	47	X X X X X	X	6
46	3	3	46	X X X	X X X	6
45	3	7	45	X X X	X X X X X X X	10
44	3	5	44	X X X	X X X X X	8
43	8	4	43	X X X X X X X X	X X X X	12
42	4	4	42	X X X X	X X X X	8
41	2	5	41	X X	X X X X X	7
40	5	1	40	X X X X X	X	6
39	3	3	39	X X X	X X X	6
38	2	2	38	X X	X X	4
37	1	2	37	X	X X	3
36	0	0	36			0
35	0	0	35			0
34	2	1	34	X X	X	3
33	0	0	33			0
32	0	0	32			0
31	0	0	31			0
30	0	0	30			0
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

PACE

Location: Fifth Avenue

Between: Dearborn Street - Wabash Avenue

Weather: Clear

Date: 9/8/21

Time From: 12:20

Time To: 12:45

Existing Speed Limit: 45 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	26%	16%
% In Pace:	80%	72%	74%
% Under Pace:	10%	2%	10%
Average Speed:	44 MPH	44 MPH	44 MPH
Pace Speed:	39 - 48 MPH	37 - 46 MPH	39 - 48 MPH
15th Percentile / Critical Speed:	39 MPH	39 MPH	39 MPH
50th Percentile / Critical Speed:	43 MPH	44 MPH	44 MPH
85th Percentile / Critical Speed:	48 MPH	50 MPH	49 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	3	53		X X X	3	
52	1	1	52	X	X	2	
51	1	1	51	X	X	2	
50	0	1	50		X	1	
49	1	1	49	X	X	2	
48	2	1	48	X X	X	3	
47	2	2	47	X X	X X	4	
46	2	0	46	X X		2	
45	4	3	45	X X X X	X X X	7	*
44	3	2	44	X X X	X X	5	*
43	3	4	43	X X X	X X X X	7	*
42	3	7	42	X X X	X X X X X X X	10	P
41	3	8	41	X X X	X X X X X X X X	11	A
40	1	4	40	X	X X X X	5	C
39	7	3	39	X X X X X X X	X X X	10	E
38	5	5	38	X X X X X	X X X X X	10	*
37	6	1	37	X X X X X X	X	7	*
36	3	3	36	X X X	X X X	6	*
35	3	0	35	X X X		3	
34	0	0	34			0	
33	0	0	33			0	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Ford Street

Between: Citrus Avenue - Fifth Avenue

Weather: Clear

Date: 8/26/21

Time From: 11:00

Time To: 11:25

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	18%	20%	19%
% In Pace:	76%	80%	78%
% Under Pace:	6%	0%	3%
Average Speed:	41 MPH	43 MPH	42 MPH
Pace Speed:	36 - 45 MPH	36 - 45 MPH	36 - 45 MPH
15th Percentile / Critical Speed:	37 MPH	38 MPH	37 MPH
50th Percentile / Critical Speed:	40 MPH	42 MPH	41 MPH
85th Percentile / Critical Speed:	46 MPH	48 MPH	47 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	1	0	50	X		1
49	2	1	49	X X	X	3
48	1	0	48	X		1
47	0	4	47		X X X X	4
46	0	4	46		X X X X	4
45	2	2	45	X X	X X	4
44	1	2	44	X	X X	3
43	2	3	43	X X	X X X	5
42	6	2	42	X X X X X X	X X	8
41	2	4	41	X X	X X X X	6
40	5	9	40	X X X X X	X X X X X X X X X	14
39	12	5	39	X X X X X X X X X X X X	X X X X X	17
38	4	3	38	X X X X	X X X	7
37	2	4	37	X X	X X X X	6
36	2	2	36	X X	X X	4
35	3	1	35	X X X	X	4
34	0	1	34		X	1
33	2	1	33	X X	X	3
32	2	0	32	X X		2
31	1	1	31	X	X	2
30	0	1	30		X	1
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Location: Ford Street

Between: Fifth Avenue - Reservoir Road

Weather: Clear

Date: 8/26/21

Time From: 11:30

Time To: 11:50

Existing Speed Limit: 40 MPH

* * * PACE * * *

	Northbound	Southbound	Combined Statistics
% Over Pace:	12%	2%	9%
% In Pace:	78%	76%	74%
% Under Pace:	10%	22%	17%
Average Speed:	40 MPH	41 MPH	40 MPH
Pace Speed:	35 - 44 MPH	38 - 47 MPH	37 - 46 MPH
15th Percentile / Critical Speed:	35 MPH	37 MPH	36 MPH
50th Percentile / Critical Speed:	39 MPH	40 MPH	40 MPH
85th Percentile / Critical Speed:	43 MPH	46 MPH	45 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	1	0	54	X		1
53	0	0	53			0
52	2	2	52	X X	X X	4
51	1	1	51	X	X	2
50	4	0	50	X X X X		4
49	2	2	49	X X	X X	4
48	2	0	48	X X		2
47	1	2	47	X	X X	3
46	3	1	46	X X X	X	4
45	1	2	45	X	X X	3
44	3	2	44	X X X	X X	5
43	4	2	43	X X X X	X X	6
42	1	6	42	X	X X X X X X	7
41	1	2	41	X	X X	3
40	5	4	40	X X X X X	X X X X	9
39	1	5	39	X	X X X X X	6
38	4	4	38	X X X X	X X X X	8
37	2	4	37	X X	X X X X	6
36	4	3	36	X X X X	X X X	7
35	2	4	35	X X	X X X X	6
34	4	1	34	X X X X	X	5
33	1	1	33	X	X	2
32	1	1	32	X	X	2
31	0	0	31			0
30	0	1	30		X	1
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

PACE *

Location: Ford Street

Between: Reservoir Road - Sunset Drive

Weather: Clear

Date: 8/26/21

Time From: 11:50

Time To: 12:10

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	40%	20%	27%
% In Pace:	56%	72%	63%
% Under Pace:	4%	8%	10%
Average Speed:	42 MPH	40 MPH	41 MPH
Pace Speed:	34 - 43 MPH	35 - 44 MPH	35 - 44 MPH
15th Percentile / Critical Speed:	35 MPH	35 MPH	35 MPH
50th Percentile / Critical Speed:	41 MPH	40 MPH	40 MPH
85th Percentile / Critical Speed:	50 MPH	46 MPH	48 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	1	0	50	X		1	
49	2	0	49	X X		2	
48	0	2	48		X X	2	
47	1	1	47	X	X	2	
46	0	3	46		X X X	3	
45	1	0	45	X		1	
44	6	4	44	X X X X X X	X X X X	10	*
43	3	1	43	X X X	X	4	*
42	6	5	42	X X X X X X	X X X X X	11	*
41	5	3	41	X X X X X	X X X	8	
40	8	6	40	X X X X X X X X	X X X X X X	14	
39	1	4	39	X	X X X X	5	
38	5	3	38	X X X X X	X X X	8	
37	2	1	37	X X	X	3	*
36	4	4	36	X X X X	X X X X	8	*
35	1	2	35	X	X X	3	*
34	2	6	34	X X	X X X X X X	8	
33	1	0	33	X		1	
32	1	3	32	X	X X X	4	
31	0	2	31		X X	2	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Ford Street

Between: Sunset Drive - Garden Hill Drive

Weather: Clear

Date: 8/26/21

Time From: 12:10

Time To: 1:05

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	8%	20%	11%
% In Pace:	82%	70%	74%
% Under Pace:	10%	10%	15%
Average Speed:	41 MPH	39 MPH	40 MPH
Pace Speed:	36 - 45 MPH	34 - 43 MPH	35 - 44 MPH
15th Percentile / Critical Speed:	36 MPH	34 MPH	34 MPH
50th Percentile / Critical Speed:	40 MPH	39 MPH	40 MPH
85th Percentile / Critical Speed:	44 MPH	44 MPH	44 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	0	0	43			0	
42	3	0	42	X X X		3	
41	0	0	41			0	
40	0	1	40		X	1	
39	1	0	39	X		1	
38	0	3	38		X X X	3	
37	3	1	37	X X X	X	4	
36	3	1	36	X X X	X	4	
35	4	4	35	X X X X	X X X X	8	
34	2	1	34	X X	X	3	
33	3	0	33	X X X		3	
32	4	3	32	X X X X	X X X	7	*
31	7	3	31	X X X X X X X	X X X	10	*
30	2	5	30	X X	X X X X X	7	*
29	3	3	29	X X X	X X X	6	
28	1	2	28	X	X X	3	
27	4	6	27	X X X X	X X X X X X	10	
26	2	2	26	X X	X X	4	
25	3	4	25	X X X	X X X X	7	
24	3	4	24	X X X	X X X X	7	*
23	2	3	23	X X	X X X	5	*
22	0	2	22		X X	2	
21	0	1	21		X	1	
20	0	1	20		X	1	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Franklin Avenue

Between: Eucalyptus Drive - Oak Street

Weather: Clear

Date: 9/8/21

Time From: 2:05

Time To: 3:40

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	22%	30%
% In Pace:	66%	70%	66%
% Under Pace:	20%	8%	4%
Average Speed:	31 MPH	29 MPH	30 MPH
Pace Speed:	27 - 36 MPH	23 - 32 MPH	23 - 32 MPH
15th Percentile / Critical Speed:	25 MPH	24 MPH	24 MPH
50th Percentile / Critical Speed:	31 MPH	28 MPH	30 MPH
85th Percentile / Critical Speed:	36 MPH	35 MPH	36 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	1	45		X	1	
44	1	1	44	X	X	2	
43	1	0	43	X		1	
42	1	1	42	X	X	2	
41	1	4	41	X	X X X X	5	
40	3	0	40	X X X		3	
39	2	2	39	X X	X X	4	*
38	4	3	38	X X X X	X X X	7	*
37	4	3	37	X X X X	X X X	7	*
36	3	1	36	X X X	X	4	P
35	6	5	35	X X X X X X	X X X X X	11	A
34	3	5	34	X X X	X X X X X	8	C
33	3	4	33	X X X	X X X X	7	E
32	5	7	32	X X X X X	X X X X X X X	12	*
31	4	6	31	X X X X	X X X X X X	10	*
30	1	3	30	X	X X X	4	*
29	1	1	29	X	X	2	
28	4	0	28	X X X X		4	
27	0	1	27		X	1	
26	1	1	26	X	X	2	
25	1	1	25	X	X	2	
24	1	0	24	X		1	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Franklin Avenue

Between: Oak Street - Garden Street

Weather: Clear

Date: 9/8/21

Time From: 1:05

Time To: 2:00

Existing Speed Limit: 25 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	8%	14%	14%
% In Pace:	74%	78%	74%
% Under Pace:	18%	8%	12%
Average Speed:	34 MPH	34 MPH	34 MPH
Pace Speed:	31 - 40 MPH	30 - 39 MPH	30 - 39 MPH
15th Percentile / Critical Speed:	29 MPH	31 MPH	30 MPH
50th Percentile / Critical Speed:	35 MPH	34 MPH	34 MPH
85th Percentile / Critical Speed:	39 MPH	39 MPH	39 MPH

Radar Survey Conducted By:

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T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	3	51		X X X	3	
50	0	0	50			0	
49	1	1	49	X	X	2	
48	1	1	48	X	X	2	
47	2	1	47	X X	X	3	
46	0	3	46		X X X	3	*
45	1	8	45	X	X X X X X X X X	9	*
44	2	4	44	X X	X X X X	6	*
43	4	5	43	X X X X	X X X X X	9	P
42	8	2	42	X X X X X X X X	X X	10	A
41	6	2	41	X X X X X X	X X	8	C
40	8	3	40	X X X X X X X X	X X X	11	E
39	4	7	39	X X X X	X X X X X X X	11	*
38	8	2	38	X X X X X X X X	X X	10	*
37	1	3	37	X	X X X	4	*
36	2	1	36	X X	X	3	
35	2	3	35	X X	X X X	5	
34	0	1	34		X	1	
33	0	0	33			0	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Garden Street

Between: Mariposa Drive - Cajon Street

Weather: Clear

Date: 9/8/21

Time From: 9:30

Time To: 10:00

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	10%	12%	10%
% In Pace:	90%	78%	81%
% Under Pace:	0%	10%	9%
Average Speed:	41 MPH	42 MPH	41 MPH
Pace Speed:	35 - 44 MPH	37 - 46 MPH	37 - 46 MPH
15th Percentile / Critical Speed:	38 MPH	37 MPH	38 MPH
50th Percentile / Critical Speed:	40 MPH	43 MPH	41 MPH
85th Percentile / Critical Speed:	43 MPH	46 MPH	45 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

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City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	1	1	43	X	X	2	
42	0	1	42		X	1	
41	1	3	41	X	X X X	4	
40	3	2	40	X X X	X X	5	
39	1	2	39	X	X X	3	
38	0	1	38		X	1	
37	3	1	37	X X X	X	4	*
36	0	5	36		X X X X X	5	*
35	3	4	35	X X X	X X X X	7	*
34	5	0	34	X X X X X		5	P
33	3	4	33	X X X	X X X X	7	A
32	6	4	32	X X X X X X	X X X X	10	C
31	8	5	31	X X X X X X X X	X X X X X	13	E
30	4	2	30	X X X X	X X	6	*
29	5	8	29	X X X X X	X X X X X X X X	13	*
28	1	1	28	X	X	2	*
27	1	0	27	X		1	
26	0	1	26		X	1	
25	4	4	25	X X X X	X X X X	8	
24	1	1	24	X	X	2	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Grove Street

Between: Highland Avenue - Citrus Avenue

Weather: Clear

Date: 9/8/21

Time From: 2:05

Time To: 4:00

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	12%	18%	16%
% In Pace:	76%	68%	72%
% Under Pace:	12%	14%	12%
Average Speed:	32 MPH	33 MPH	33 MPH
Pace Speed:	28 - 37 MPH	29 - 38 MPH	28 - 37 MPH
15th Percentile / Critical Speed:	29 MPH	29 MPH	29 MPH
50th Percentile / Critical Speed:	32 MPH	32 MPH	32 MPH
85th Percentile / Critical Speed:	37 MPH	39 MPH	38 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	1	49		X	1
48	0	1	48		X	1
47	0	1	47		X	1
46	1	2	46	X	X X	3
45	3	0	45	X X X		3
44	0	0	44			0
43	3	1	43	X X X	X	4
42	1	1	42	X	X	2
41	1	2	41	X	X X	3
40	1	1	40	X	X	2
39	3	3	39	X X X	X X X	6
38	1	0	38	X		1
37	5	3	37	X X X X X	X X X	8
36	5	4	36	X X X X X	X X X X	9
35	2	4	35	X X	X X X X	6
34	5	4	34	X X X X X	X X X X	9
33	3	4	33	X X X	X X X X	7
32	1	3	32	X	X X X	4
31	1	2	31	X	X X	3
30	5	4	30	X X X X X	X X X X	9
29	3	3	29	X X X	X X X	6
28	1	1	28	X	X	2
27	4	2	27	X X X X	X X	6
26	0	1	26		X	1
25	1	2	25	X	X X	3
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Location: Grove Street

Between: Citrus Avenue - Brockton Avenue

Weather: Clear

Date: 9/8/21

Time From: 12:50

Time To: 1:30

Existing Speed Limit: N / P MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	20%	26%	27%
% In Pace:	62%	64%	63%
% Under Pace:	18%	10%	10%
Average Speed:	35 MPH	35 MPH	35 MPH
Pace Speed:	30 - 39 MPH	28 - 37 MPH	28 - 37 MPH
15th Percentile / Critical Speed:	29 MPH	29 MPH	29 MPH
50th Percentile / Critical Speed:	35 MPH	34 MPH	34 MPH
85th Percentile / Critical Speed:	42 MPH	41 MPH	41 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	1	4	52	X	X X X X	5	
51	1	1	51	X	X	2	
50	1	2	50	X	X X	3	
49	4	2	49	X X X X	X X	6	*
48	2	6	48	X X	X X X X X X	8	*
47	0	1	47		X	1	*
46	3	3	46	X X X	X X X	6	P
45	3	3	45	X X X	X X X	6	A
44	2	2	44	X X	X X	4	C
43	5	10	43	X X X X X	X X X X X X X X X X	15	E
42	6	3	42	X X X X X X	X X X	9	*
41	6	0	41	X X X X X X		6	*
40	5	5	40	X X X X X	X X X X X	10	*
39	3	0	39	X X X		3	
38	3	2	38	X X X	X X	5	
37	2	1	37	X X	X	3	
36	0	2	36		X X	2	
35	2	0	35	X X		2	
34	1	2	34	X	X X	3	
33	0	0	33			0	
32	0	1	32		X	1	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Highland Avenue

Between: Ford Street - Cajon Street

Weather: Clear

Date: 9/2/21

Time From: 11:40

Time To: 12:05

Existing Speed Limit: 40 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	18%	14%	10%
% In Pace:	76%	70%	71%
% Under Pace:	6%	16%	19%
Average Speed:	43 MPH	44 MPH	43 MPH
Pace Speed:	37 - 46 MPH	40 - 49 MPH	40 - 49 MPH
15th Percentile / Critical Speed:	38 MPH	38 MPH	38 MPH
50th Percentile / Critical Speed:	42 MPH	43 MPH	43 MPH
85th Percentile / Critical Speed:	48 MPH	49 MPH	49 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Vehicles Surveyed: Eastbound	Vehicles Surveyed: Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	1	0	47	X		1
46	2	0	46	X X		2
45	1	0	45	X		1
44	3	1	44	X X X	X	4
43	0	3	43		X X X	3
42	0	2	42		X X	2
41	5	2	41	X X X X X	X X	7
40	4	6	40	X X X X	X X X X X X	10
39	1	4	39	X	X X X X	5
38	7	1	38	X X X X X X X	X	8
37	4	7	37	X X X X	X X X X X X X	11
36	4	6	36	X X X X	X X X X X X	10
35	2	4	35	X X	X X X X	6
34	1	4	34	X	X X X X	5
33	4	1	33	X X X X	X	5
32	4	4	32	X X X X	X X X X	8
31	2	1	31	X X	X	3
30	3	1	30	X X X	X	4
29	2	0	29	X X		2
28	0	1	28		X	1
27	0	2	27		X X	2
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Location: Highland Avenue

Between: Cajon Street - San Mateo Street

Weather: Clear

Date: 9/2/21

Time From: 11:05

Time To: 11:40

Existing Speed Limit: 35 MPH

PACE	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	2%	13%
% In Pace:	72%	78%	75%
% Under Pace:	14%	20%	12%
Average Speed:	37 MPH	37 MPH	37 MPH
Pace Speed:	32 - 41 MPH	34 - 43 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	32 MPH	32 MPH	32 MPH
50th Percentile / Critical Speed:	37 MPH	37 MPH	37 MPH
85th Percentile / Critical Speed:	41 MPH	41 MPH	41 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	0	0	43			0
42	0	0	42			0
41	0	0	41			0
40	0	0	40			0
39	0	0	39			0
38	0	0	38			0
37	1	0	37	X		1
36	0	0	36			0
35	1	1	35	X	X	2
34	1	2	34	X	X X	3
33	2	1	33	X X	X	3
32	2	2	32	X X	X X	4
31	4	3	31	X X X X	X X X	7
30	1	6	30	X	X X X X X X	7
29	5	3	29	X X X X X	X X X	8
28	9	4	28	X X X X X X X X X	X X X X	13
27	5	9	27	X X X X X	X X X X X X X X X	14
26	3	8	26	X X X	X X X X X X X X	11
25	8	4	25	X X X X X X X X	X X X X	12
24	5	3	24	X X X X X	X X X	8
23	3	1	23	X X X	X	4
22	0	2	22		X X	2
21	0	1	21		X	1
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

Location: Highland Avenue

Between: San Mateo Street - Serpentine Drive

Weather: Clear

Date: 9/2/21

Time From: 10:10

Time To: 11:05

Existing Speed Limit: 30 MPH

PACE	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	6%	9%
% In Pace:	90%	86%	88%
% Under Pace:	0%	8%	3%
Average Speed:	28 MPH	28 MPH	28 MPH
Pace Speed:	23 - 32 MPH	24 - 33 MPH	23 - 32 MPH
15th Percentile / Critical Speed:	24 MPH	25 MPH	24 MPH
50th Percentile / Critical Speed:	28 MPH	27 MPH	27 MPH
85th Percentile / Critical Speed:	31 MPH	31 MPH	31 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	1	51		X	1	
50	0	1	50		X	1	
49	2	1	49	X X	X	3	
48	2	1	48	X X	X	3	
47	0	0	47			0	
46	2	2	46	X X	X X	4	
45	1	3	45	X	X X X	4	
44	5	4	44	X X X X X	X X X X	9	*
43	4	2	43	X X X X	X X	6	*
42	4	7	42	X X X X	X X X X X X X	11	*
41	2	5	41	X X	X X X X X	7	P
40	5	8	40	X X X X X	X X X X X X X X	13	A
39	5	3	39	X X X X X	X X X	8	C
38	3	5	38	X X X	X X X X X	8	E
37	6	2	37	X X X X X X	X X	8	*
36	5	0	36	X X X X X		5	*
35	3	2	35	X X X	X X	5	*
34	0	2	34		X X	2	
33	0	0	33			0	
32	0	0	32			0	
31	1	1	31	X	X	2	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Judson Street

Between: Citrus Avenue - Colton Avenue

Weather: Clear

Date: 9/2/21

Time From: 12:10

Time To: 12:30

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	14%	8%	16%
% In Pace:	84%	82%	80%
% Under Pace:	2%	10%	4%
Average Speed:	40 MPH	41 MPH	41 MPH
Pace Speed:	35 - 44 MPH	37 - 46 MPH	35 - 44 MPH
15th Percentile / Critical Speed:	36 MPH	38 MPH	37 MPH
50th Percentile / Critical Speed:	40 MPH	41 MPH	40 MPH
85th Percentile / Critical Speed:	44 MPH	45 MPH	45 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	1	0	48	X		1	
47	0	0	47			0	
46	3	0	46	X X X		3	
45	2	1	45	X X	X	3	
44	0	1	44		X	1	
43	4	1	43	X X X X	X	5	*
42	6	3	42	X X X X X X	X X X	9	*
41	4	5	41	X X X X	X X X X X	9	*
40	5	8	40	X X X X X	X X X X X X X X	13	*
39	2	3	39	X X	X X X	5	*
38	2	5	38	X X	X X X X X	7	*
37	9	9	37	X X X X X X X X X	X X X X X X X X X	18	*
36	3	4	36	X X X	X X X X	7	*
35	6	5	35	X X X X X X	X X X X X	11	*
34	2	3	34	X X	X X X	5	*
33	1	0	33	X		1	
32	0	1	32		X	1	
31	0	1	31		X	1	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Judson Street

Between: Colton Avenue - Lugonia Avenue

Weather: Clear

Date: 9/2/21

Time From: 12:30

Time To: 1:00

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	12%	4%	8%
% In Pace:	86%	92%	89%
% Under Pace:	2%	4%	3%
Average Speed:	39 MPH	38 MPH	39 MPH
Pace Speed:	34 - 43 MPH	34 - 43 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	35 MPH	35 MPH	35 MPH
50th Percentile / Critical Speed:	40 MPH	38 MPH	38 MPH
85th Percentile / Critical Speed:	43 MPH	41 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	1	0	47	X		1	
46	0	0	46			0	
45	3	0	45	X X X		3	
44	1	0	44	X		1	
43	3	1	43	X X X	X	4	
42	3	1	42	X X X	X	4	
41	1	1	41	X	X	2	
40	3	1	40	X X X	X	4	
39	3	3	39	X X X	X X X	6	*
38	3	2	38	X X X	X X	5	*
37	1	4	37	X	X X X X	5	*
36	4	3	36	X X X X	X X X	7	P
35	3	3	35	X X X	X X X	6	A
34	5	10	34	X X X X X	X X X X X X X X X X	15	C
33	5	4	33	X X X X X	X X X X	9	E
32	2	7	32	X X	X X X X X X X	9	*
31	5	3	31	X X X X X	X X X	8	*
30	3	4	30	X X X	X X X X	7	*
29	0	0	29			0	
28	1	2	28	X	X X	3	
27	0	1	27		X	1	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Judson Street

Between: Lugonia Avenue - Pioneer Avenue

Weather: Clear

Date: 9/1/21

Time From: 3:15

Time To: 3:55

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	24%	8%	19%
% In Pace:	68%	86%	77%
% Under Pace:	8%	6%	4%
Average Speed:	37 MPH	34 MPH	35 MPH
Pace Speed:	31 - 40 MPH	30 - 39 MPH	30 - 39 MPH
15th Percentile / Critical Speed:	31 MPH	31 MPH	31 MPH
50th Percentile / Critical Speed:	36 MPH	34 MPH	34 MPH
85th Percentile / Critical Speed:	43 MPH	38 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
75	0	0	75			0
74	0	0	74			0
73	0	0	73			0
72	0	0	72			0
71	0	0	71			0
70	0	0	70			0
69	0	0	69			0
68	0	0	68			0
67	0	0	67			0
66	0	0	66			0
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	2	59		X X	2
58	0	1	58		X	1
57	2	2	57	X X	X X	4
56	2	2	56	X X	X X	4
55	1	3	55	X	X X X	4
54	1	2	54	X	X X	3
53	1	2	53	X	X X	3
52	2	2	52	X X	X X	4
51	3	4	51	X X X	X X X X	7
50	3	1	50	X X X	X	4
49	0	3	49		X X X	3
48	2	2	48	X X	X X	4
47	5	6	47	X X X X X	X X X X X X	11
46	4	1	46	X X X X	X	5
45	5	6	45	X X X X X	X X X X X X	11
44	1	4	44	X	X X X X	5
43	6	3	43	X X X X X X	X X X	9
42	3	1	42	X X X	X	4
41	1	0	41	X		1
40	1	1	40	X	X	2
39	2	1	39	X X	X	3
38	2	1	38	X X	X	3
37	2	0	37	X X		2
36	1	0	36	X		1
35	0	0	35			0
34	0	0	34			0
33	0	0	33			0
32	0	0	32			0
31	0	0	31			0
30	0	0	30			0
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

Location: Lugonia Avenue

Between: 1500' W/ Research Avenue - California Street

Weather: Clear

Date: 8/31/21

Time From: 9:00

Time To: 9:25

Existing Speed Limit: 50 MPH

PACE	Eastbound	Westbound	Combined Statistics
% Over Pace:	18%	28%	21%
% In Pace:	64%	64%	63%
% Under Pace:	18%	8%	16%
Average Speed:	46 MPH	49 MPH	48 MPH
Pace Speed:	42 - 51 MPH	43 - 52 MPH	43 - 52 MPH
15th Percentile / Critical Speed:	40 MPH	44 MPH	42 MPH
50th Percentile / Critical Speed:	46 MPH	48 MPH	47 MPH
85th Percentile / Critical Speed:	52 MPH	55 MPH	54 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	1	0	54	X		1	
53	1	1	53	X	X	2	
52	2	2	52	X X	X X	4	
51	0	1	51		X	1	
50	3	1	50	X X X	X	4	
49	1	1	49	X	X	2	
48	0	1	48		X	1	
47	1	2	47	X	X X	3	
46	1	3	46	X	X X X	4	*
45	3	8	45	X X X	X X X X X X X X	11	*
44	0	3	44		X X X	3	*
43	8	4	43	X X X X X X X X	X X X X	12	P
42	4	3	42	X X X X	X X X	7	A
41	6	3	41	X X X X X X	X X X	9	C
40	4	3	40	X X X X	X X X	7	E
39	3	3	39	X X X	X X X	6	*
38	3	6	38	X X X	X X X X X X	9	*
37	3	1	37	X X X	X	4	*
36	2	2	36	X X	X X	4	
35	2	2	35	X X	X X	4	
34	1	0	34	X		1	
33	0	0	33			0	
32	1	0	32	X		1	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Vehicles Surveyed

Location: Lugonia Avenue

Between: California Street - Alabama Street

Weather: Clear

Date: 8/31/21

Time From: 9:00

Time To: 9:25

Existing Speed Limit: 45 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	20%	14%	18%
% In Pace:	72%	76%	72%
% Under Pace:	8%	10%	10%
Average Speed:	42 MPH	43 MPH	43 MPH
Pace Speed:	36 - 45 MPH	38 - 47 MPH	37 - 46 MPH
15th Percentile / Critical Speed:	37 MPH	38 MPH	38 MPH
50th Percentile / Critical Speed:	41 MPH	43 MPH	42 MPH
85th Percentile / Critical Speed:	49 MPH	47 MPH	47 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Vehicles Surveyed: Eastbound	Vehicles Surveyed: Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	1	0	49	X		1	
48	0	0	48			0	
47	3	0	47	X X X		3	
46	6	1	46	X X X X X X	X	7	*
45	1	0	45	X		1	*
44	3	1	44	X X X	X	4	*
43	3	6	43	X X X	X X X X X X	9	P
42	7	4	42	X X X X X X X	X X X X	11	A
41	6	10	41	X X X X X X	X X X X X X X X X X	16	C
40	3	9	40	X X X	X X X X X X X X X	12	E
39	2	4	39	X X	X X X X	6	*
38	3	10	38	X X X	X X X X X X X X X X	13	*
37	4	3	37	X X X X	X X X	7	*
36	3	0	36	X X X		3	
35	2	2	35	X X	X X	4	
34	3	0	34	X X X		3	
33	0	0	33			0	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Lugonia Avenue

Between: Alabama Street - Tennessee Street

Weather: Clear

Date: 8/31/21

Time From: 9:30

Time To: 9:50

Existing Speed Limit: 40 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	8%	2%	4%
% In Pace:	76%	98%	86%
% Under Pace:	16%	0%	10%
Average Speed:	41 MPH	40 MPH	41 MPH
Pace Speed:	37 - 46 MPH	35 - 44 MPH	37 - 46 MPH
15th Percentile / Critical Speed:	36 MPH	38 MPH	37 MPH
50th Percentile / Critical Speed:	41 MPH	40 MPH	41 MPH
85th Percentile / Critical Speed:	46 MPH	43 MPH	44 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	1	48		X	1	
47	2	1	47	X X	X	3	
46	1	3	46	X	X X X	4	
45	1	0	45	X		1	
44	1	3	44	X	X X X	4	
43	5	5	43	X X X X X	X X X X X	10	*
42	5	1	42	X X X X X	X	6	*
41	2	6	41	X X	X X X X X X	8	*
40	1	5	40	X	X X X X X	6	
39	3	5	39	X X X	X X X X X	8	
38	1	5	38	X	X X X X X	6	
37	6	3	37	X X X X X X	X X X	9	
36	7	4	36	X X X X X X X	X X X X	11	*
35	6	5	35	X X X X X X	X X X X X	11	*
34	4	1	34	X X X X	X	5	*
33	1	0	33	X		1	
32	3	1	32	X X X	X	4	
31	0	1	31		X	1	
30	1	0	30	X		1	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Lugonia Avenue

Between: Tennessee Street - Texas Street

Weather: Clear

Date: 8/31/21

Time From: 9:50

Time To: 10:15

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	10%	13%
% In Pace:	80%	84%	80%
% Under Pace:	10%	6%	7%
Average Speed:	38 MPH	40 MPH	39 MPH
Pace Speed:	34 - 43 MPH	35 - 44 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	34 MPH	35 MPH	35 MPH
50th Percentile / Critical Speed:	37 MPH	39 MPH	39 MPH
85th Percentile / Critical Speed:	43 MPH	44 MPH	43 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	1	2	49	X	X X	3	
48	2	2	48	X X	X X	4	
47	3	0	47	X X X		3	
46	2	1	46	X X	X	3	
45	3	5	45	X X X	X X X X X	8	*
44	3	2	44	X X X	X X	5	*
43	7	4	43	X X X X X X X	X X X X	11	*
42	4	9	42	X X X X	X X X X X X X X X	13	
41	7	5	41	X X X X X X X	X X X X X	12	
40	4	3	40	X X X X	X X X	7	
39	0	5	39		X X X X X	5	
38	4	7	38	X X X X	X X X X X X X	11	*
37	3	1	37	X X X	X	4	*
36	3	1	36	X X X	X	4	*
35	2	1	35	X X	X	3	
34	0	0	34			0	
33	1	2	33	X	X X	3	
32	1	0	32	X		1	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Lugonia Avenue

Between: Texas Street - Orange Street

Weather: Clear

Date: 8/31/21

Time From: 10:20

Time To: 10:40

Existing Speed Limit: 40 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	16%	8%	13%
% In Pace:	76%	84%	80%
% Under Pace:	8%	8%	7%
Average Speed:	41 MPH	41 MPH	41 MPH
Pace Speed:	36 - 45 MPH	37 - 46 MPH	36 - 45 MPH
15th Percentile / Critical Speed:	37 MPH	38 MPH	37 MPH
50th Percentile / Critical Speed:	41 MPH	41 MPH	41 MPH
85th Percentile / Critical Speed:	46 MPH	45 MPH	45 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	1	0	46	X		1
45	0	0	45			0
44	0	0	44			0
43	0	0	43			0
42	5	0	42	X X X X X		5
41	1	1	41	X	X	2
40	0	1	40		X	1
39	1	2	39	X	X X	3
38	5	3	38	X X X X X	X X X	8
37	4	5	37	X X X X	X X X X X	9
36	1	2	36	X	X X	3
35	1	4	35	X	X X X X	5
34	5	0	34	X X X X X		5
33	6	1	33	X X X X X X	X	7
32	3	7	32	X X X	X X X X X X X	10
31	3	2	31	X X X	X X	5
30	3	4	30	X X X	X X X X	7
29	1	3	29	X	X X X	4
28	1	2	28	X	X X	3
27	1	2	27	X	X X	3
26	3	4	26	X X X	X X X X	7
25	5	2	25	X X X X X	X X	7
24	0	1	24		X	1
23	0	1	23		X	1
22	0	1	22		X	1
21	0	2	21		X X	2
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Location: Mariposa Drive

Between: Wabash Avenue - Country Club Drive

Weather: Clear

Date: 9/2/21

Time From: 9:00

Time To: 1:10

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	8%	12%
% In Pace:	64%	62%	63%
% Under Pace:	22%	30%	25%
Average Speed:	34 MPH	31 MPH	33 MPH
Pace Speed:	30 - 39 MPH	29 - 38 MPH	29 - 38 MPH
15th Percentile / Critical Speed:	26 MPH	26 MPH	26 MPH
50th Percentile / Critical Speed:	33 MPH	32 MPH	32 MPH
85th Percentile / Critical Speed:	39 MPH	37 MPH	38 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	1	45		X	1	
44	1	0	44	X		1	
43	2	0	43	X X		2	
42	1	2	42	X	X X	3	
41	2	6	41	X X	X X X X X X	8	*
40	0	1	40		X	1	*
39	6	2	39	X X X X X X	X X	8	*
38	7	5	38	X X X X X X X	X X X X X	12	P
37	9	6	37	X X X X X X X X X	X X X X X X	15	A
36	4	3	36	X X X X	X X X	7	C
35	4	10	35	X X X X	X X X X X X X X X X	14	E
34	1	2	34	X	X X	3	*
33	3	1	33	X X X	X	4	*
32	5	5	32	X X X X X	X X X X X	10	*
31	3	1	31	X X X	X	4	
30	1	3	30	X	X X X	4	
29	1	1	29	X	X	2	
28	0	1	28		X	1	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Mariposa Drive

Between: Country Club Drive - Garden Street

Weather: Clear

Date: 8/31/21

Time From: 12:00

Time To: 12:25

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	12%	6%	7%
% In Pace:	86%	82%	82%
% Under Pace:	2%	12%	11%
Average Speed:	36 MPH	36 MPH	36 MPH
Pace Speed:	30 - 39 MPH	32 - 41 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	32 MPH	32 MPH	32 MPH
50th Percentile / Critical Speed:	37 MPH	36 MPH	37 MPH
85th Percentile / Critical Speed:	39 MPH	41 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	0	0	43			0	
42	0	0	42			0	
41	0	0	41			0	
40	0	0	40			0	
39	0	0	39			0	
38	0	0	38			0	
37	0	0	37			0	
36	0	0	36			0	
35	0	0	35			0	
34	0	0	34			0	
33	0	0	33			0	
32	0	3	32		X X X	3	
31	0	1	31		X	1	
30	0	0	30			0	
29	0	1	29		X	1	
28	1	3	28	X	X X X	4	
27	1	5	27	X	X X X X X	6	
26	2	3	26	X X	X X X	5	
25	1	2	25	X	X X	3	
24	5	4	24	X X X X X	X X X X	9	*
23	2	5	23	X X	X X X X X	7	*
22	1	3	22	X	X X X	4	*
21	1	3	21	X	X X X	4	
20	2	2	20	X X	X X	4	
19	8	3	19	X X X X X X X X	X X X	11	
18	3	4	18	X X X	X X X X	7	
17	2	0	17	X X		2	*
16	5	3	16	X X X X X	X X X	8	*
15	3	2	15	X X X	X X	5	*
14	4	2	14	X X X X	X X	6	
13	3	1	13	X X X	X	4	
12	5	0	12	X X X X X		5	
11	0	0	11			0	
10	1	0	10	X		1	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Mariposa Drive

Between: Halsey Street - Dwight Street

Weather: Clear

Date: 9/1/21

Time From: 9:00

Time To: 4:00

Existing Speed Limit: N / P MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	26%	16%	23%
% In Pace:	72%	68%	61%
% Under Pace:	2%	16%	16%
Average Speed:	18 MPH	23 MPH	20 MPH
Pace Speed:	12 - 21 MPH	18 - 27 MPH	15 - 24 MPH
15th Percentile / Critical Speed:	13 MPH	16 MPH	14 MPH
50th Percentile / Critical Speed:	18 MPH	23 MPH	20 MPH
85th Percentile / Critical Speed:	24 MPH	28 MPH	26 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

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City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
75	0	0	75			0	
74	0	0	74			0	
73	0	0	73			0	
72	0	0	72			0	
71	0	0	71			0	
70	0	0	70			0	
69	0	0	69			0	
68	0	0	68			0	
67	0	0	67			0	
66	0	0	66			0	
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	1	59		X	1	
58	0	1	58		X	1	
57	0	2	57		X X	2	
56	3	2	56	X X X	X X	5	
55	0	3	55		X X X	3	
54	3	2	54	X X X	X X	5	*
53	4	6	53	X X X X	X X X X X X	10	*
52	5	0	52	X X X X X		5	*
51	2	4	51	X X	X X X X	6	*
50	2	4	50	X X	X X X X	6	*
49	7	5	49	X X X X X X X	X X X X X	12	*
48	5	3	48	X X X X X	X X X	8	*
47	2	1	47	X X	X	3	*
46	4	7	46	X X X X	X X X X X X X	11	*
45	4	4	45	X X X X	X X X X	8	*
44	1	2	44	X	X X	3	
43	2	2	43	X X	X X	4	
42	2	0	42	X X		2	
41	2	1	41	X X	X	3	
40	2	0	40	X X		2	
39	0	0	39			0	
38	0	0	38			0	
37	0	0	37			0	
36	0	0	36			0	
35	0	0	35			0	
34	0	0	34			0	
33	0	0	33			0	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
Total	50	50			GRAND TOTALS	100	

Location: Mountain View Avenue

Between: Interstate 10 - Central Avenue

Weather: Clear

Date: 9/9/21

Time From: 2:15

Time To: 2:35

Existing Speed Limit: 45 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	6%	18%	12%
% In Pace:	76%	72%	74%
% Under Pace:	18%	10%	14%
Average Speed:	48 MPH	50 MPH	49 MPH
Pace Speed:	45 - 54 MPH	45 - 54 MPH	45 - 54 MPH
15th Percentile / Critical Speed:	43 MPH	45 MPH	45 MPH
50th Percentile / Critical Speed:	49 MPH	49 MPH	49 MPH
85th Percentile / Critical Speed:	53 MPH	55 MPH	54 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	3	52		X X X	3	
51	0	0	51			0	
50	0	1	50		X	1	
49	0	2	49		X X	2	
48	0	2	48		X X	2	
47	1	0	47	X		1	
46	4	1	46	X X X X	X	5	
45	1	1	45	X	X	2	
44	4	0	44	X X X X		4	*
43	1	3	43	X	X X X	4	*
42	3	6	42	X X X	X X X X X X	9	*
41	3	9	41	X X X	X X X X X X X X X	12	P
40	6	3	40	X X X X X X	X X X	9	A
39	6	5	39	X X X X X X	X X X X X	11	C
38	5	3	38	X X X X X	X X X	8	E
37	3	4	37	X X X	X X X X	7	*
36	1	4	36	X	X X X X	5	*
35	3	2	35	X X X	X X	5	*
34	1	1	34	X	X	2	
33	3	0	33	X X X		3	
32	1	0	32	X		1	
31	1	0	31	X		1	
30	3	0	30	X X X		3	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: New York Street

Between: Colton Avenue - Lugonia Avenue

Weather: Clear

Date: 9/9/21

Time From: 9:00

Time To: 9:30

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	2%	20%	16%
% In Pace:	72%	80%	74%
% Under Pace:	26%	0%	10%
Average Speed:	39 MPH	41 MPH	40 MPH
Pace Speed:	37 - 46 MPH	34 - 43 MPH	35 - 44 MPH
15th Percentile / Critical Speed:	33 MPH	37 MPH	35 MPH
50th Percentile / Critical Speed:	39 MPH	41 MPH	40 MPH
85th Percentile / Critical Speed:	44 MPH	48 MPH	45 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Vehicles Surveyed: Eastbound	Vehicles Surveyed: Westbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	0	0	43			0
42	0	0	42			0
41	1	0	41	X		1
40	0	0	40			0
39	0	2	39		X X	2
38	1	0	38	X		1
37	1	2	37	X	X X	3
36	3	5	36	X X X	X X X X X	8
35	2	5	35	X X	X X X X X	7
34	3	0	34	X X X		3
33	10	2	33	X X X X X X X X X X	X X	12
32	2	10	32	X X	X X X X X X X X X X	12
31	12	6	31	X X X X X X X X X X X X	X X X X X X	18
30	6	9	30	X X X X X X	X X X X X X X X X	15
29	3	3	29	X X X	X X X	6
28	1	3	28	X	X X X	4
27	3	3	27	X X X	X X X	6
26	1	0	26	X		1
25	1	0	25	X		1
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

* * * PACE * * *

Location: Olive Avenue

Between: Citrus Avenue - San Mateo Street

Weather: Clear

Date: 9/2/21

Time From: 9:15

Time To: 9:35

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	6%	8%	7%
% In Pace:	90%	92%	91%
% Under Pace:	4%	0%	2%
Average Speed:	32 MPH	32 MPH	32 MPH
Pace Speed:	27 - 36 MPH	27 - 36 MPH	27 - 36 MPH
15th Percentile / Critical Speed:	29 MPH	29 MPH	29 MPH
50th Percentile / Critical Speed:	31 MPH	32 MPH	31 MPH
85th Percentile / Critical Speed:	35 MPH	36 MPH	35 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	2	0	46	X X		2	
45	0	1	45		X	1	
44	0	0	44			0	
43	2	5	43	X X	X X X X X	7	*
42	2	4	42	X X	X X X X	6	*
41	2	2	41	X X	X X	4	*
40	2	5	40	X X	X X X X X	7	P
39	2	4	39	X X	X X X X	6	A
38	6	1	38	X X X X X X	X	7	C
37	4	8	37	X X X X	X X X X X X X X	12	E
36	5	4	36	X X X X X	X X X X	9	*
35	3	7	35	X X X	X X X X X X X	10	*
34	3	3	34	X X X	X X X	6	*
33	5	1	33	X X X X X	X	6	
32	3	3	32	X X X	X X X	6	
31	3	1	31	X X X	X	4	
30	4	1	30	X X X X	X	5	
29	1	0	29	X		1	
28	1	0	28	X		1	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Olive Avenue

Between: San Mateo Street - Terracina Boulevard

Weather: Clear

Date: 9/2/21

Time From: 9:35

Time To: 10:05

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	20%	2%	3%
% In Pace:	76%	86%	74%
% Under Pace:	4%	12%	23%
Average Speed:	36 MPH	38 MPH	37 MPH
Pace Speed:	30 - 39 MPH	34 - 43 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	31 MPH	34 MPH	32 MPH
50th Percentile / Critical Speed:	36 MPH	37 MPH	37 MPH
85th Percentile / Critical Speed:	41 MPH	42 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	2	0	47	X X		2	
46	0	0	46			0	
45	2	4	45	X X	X X X X	6	*
44	2	5	44	X X	X X X X X	7	*
43	3	3	43	X X X	X X X	6	*
42	4	7	42	X X X X	X X X X X X X	11	P
41	6	7	41	X X X X X X	X X X X X X X	13	A
40	6	5	40	X X X X X X	X X X X X	11	C
39	11	4	39	X X X X X X X X X X X	X X X X	15	E
38	5	2	38	X X X X X	X X	7	*
37	1	4	37	X	X X X X	5	*
36	4	3	36	X X X X	X X X	7	*
35	2	2	35	X X	X X	4	
34	0	2	34		X X	2	
33	2	0	33	X X		2	
32	0	2	32		X X	2	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Orange Street

Between: Lugonia Avenue - Pioneer Avenue

Weather: Clear

Date: 8/31/21

Time From: 10:40

Time To: 11:00

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	4%	0%	2%
% In Pace:	88%	88%	88%
% Under Pace:	8%	12%	10%
Average Speed:	40 MPH	40 MPH	40 MPH
Pace Speed:	36 - 45 MPH	36 - 45 MPH	36 - 45 MPH
15th Percentile / Critical Speed:	36 MPH	36 MPH	36 MPH
50th Percentile / Critical Speed:	39 MPH	41 MPH	40 MPH
85th Percentile / Critical Speed:	43 MPH	44 MPH	43 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	1	1	49	X	X	2	
48	1	1	48	X	X	2	
47	3	1	47	X X X	X	4	
46	3	2	46	X X X	X X	5	
45	3	5	45	X X X	X X X X X	8	*
44	3	1	44	X X X	X	4	*
43	5	4	43	X X X X X	X X X X	9	*
42	3	3	42	X X X	X X X	6	
41	3	5	41	X X X	X X X X X	8	
40	3	6	40	X X X	X X X X X X	9	
39	6	8	39	X X X X X X	X X X X X X X X	14	
38	6	5	38	X X X X X X	X X X X X	11	*
37	4	2	37	X X X X	X X	6	*
36	3	4	36	X X X	X X X X	7	*
35	0	1	35		X	1	
34	1	0	34	X		1	
33	1	0	33	X		1	
32	1	0	32	X		1	
31	0	1	31		X	1	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Orange Street

Between: Pioneer Avenue - Hubbard Court

Weather: Clear

Date: 8/31/21

Time From: 11:00

Time To: 11:20

Existing Speed Limit: 45 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	10%	10%	13%
% In Pace:	78%	86%	82%
% Under Pace:	12%	4%	5%
Average Speed:	41 MPH	41 MPH	41 MPH
Pace Speed:	37 - 46 MPH	36 - 45 MPH	36 - 45 MPH
15th Percentile / Critical Speed:	37 MPH	37 MPH	37 MPH
50th Percentile / Critical Speed:	40 MPH	40 MPH	40 MPH
85th Percentile / Critical Speed:	46 MPH	45 MPH	45 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
75	0	0	75			0	
74	0	0	74			0	
73	0	0	73			0	
72	0	0	72			0	
71	0	0	71			0	
70	0	0	70			0	
69	0	0	69			0	
68	0	0	68			0	
67	0	0	67			0	
66	0	0	66			0	
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	1	60		X	1	
59	0	0	59			0	
58	1	0	58	X		1	
57	0	2	57		X X	2	
56	2	2	56	X X	X X	4	
55	3	3	55	X X X	X X X	6	*
54	2	4	54	X X	X X X X	6	*
53	4	6	53	X X X X	X X X X X X	10	*
52	2	6	52	X X	X X X X X X	8	P
51	5	9	51	X X X X X	X X X X X X X X X	14	A
50	6	7	50	X X X X X X	X X X X X X X	13	C
49	6	2	49	X X X X X X	X X	8	E
48	6	4	48	X X X X X X	X X X X	10	*
47	5	0	47	X X X X X		5	*
46	4	3	46	X X X X	X X X	7	*
45	3	1	45	X X X	X	4	
44	0	0	44			0	
43	1	0	43	X		1	
42	0	0	42			0	
41	0	0	41			0	
40	0	0	40			0	
39	0	0	39			0	
38	0	0	38			0	
37	0	0	37			0	
36	0	0	36			0	
35	0	0	35			0	
34	0	0	34			0	
33	0	0	33			0	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
Total	50	50			GRAND TOTALS	100	

Location: Orange Street

Between: Hubbard Court - City Limits

Weather: Clear

Date: 8/31/21

Time From: 11:25

Time To: 11:45

Existing Speed Limit: 50 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	6%	2%	8%
% In Pace:	86%	90%	87%
% Under Pace:	8%	8%	5%
Average Speed:	50 MPH	52 MPH	51 MPH
Pace Speed:	46 - 55 MPH	48 - 57 MPH	46 - 55 MPH
15th Percentile / Critical Speed:	46 MPH	48 MPH	47 MPH
50th Percentile / Critical Speed:	49 MPH	51 MPH	51 MPH
85th Percentile / Critical Speed:	54 MPH	55 MPH	54 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Vehicles Surveyed: Eastbound	Vehicles Surveyed: Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	2	46		X X	2	
45	1	0	45	X		1	
44	0	1	44		X	1	
43	0	0	43			0	
42	1	1	42	X	X	2	
41	1	2	41	X	X X	3	
40	3	3	40	X X X	X X X	6	
39	3	3	39	X X X	X X X	6	*
38	1	3	38	X	X X X	4	*
37	3	4	37	X X X	X X X X	7	*
36	3	8	36	X X X	X X X X X X X X	11	P
35	1	2	35	X	X X	3	A
34	5	6	34	X X X X X	X X X X X X	11	C
33	4	2	33	X X X X	X X	6	E
32	6	4	32	X X X X X X	X X X X	10	*
31	6	2	31	X X X X X X	X X	8	*
30	7	3	30	X X X X X X X	X X X	10	*
29	2	1	29	X X	X	3	
28	2	2	28	X X	X X	4	
27	0	0	27			0	
26	0	0	26			0	
25	1	1	25	X	X	2	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Orange Tree Lane

Between: California Street - Nevada Street

Weather: Clear

Date: 9/9/21

Time From: 2:40

Time To: 3:00

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	12%	8%	15%
% In Pace:	78%	74%	76%
% Under Pace:	10%	18%	9%
Average Speed:	34 MPH	36 MPH	35 MPH
Pace Speed:	30 - 39 MPH	32 - 41 MPH	30 - 39 MPH
15th Percentile / Critical Speed:	30 MPH	31 MPH	30 MPH
50th Percentile / Critical Speed:	33 MPH	36 MPH	34 MPH
85th Percentile / Critical Speed:	39 MPH	40 MPH	39 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	1	50		X	1
49	0	1	49		X	1
48	5	4	48	X X X X X	X X X X	9
47	0	0	47			0
46	1	1	46	X	X	2
45	1	1	45	X	X	2
44	1	2	44	X	X X	3
43	5	3	43	X X X X X	X X X	8
42	4	2	42	X X X X	X X	6
41	4	3	41	X X X X	X X X	7
40	3	4	40	X X X	X X X X	7
39	3	2	39	X X X	X X	5
38	2	3	38	X X	X X X	5
37	4	5	37	X X X X	X X X X X	9
36	4	4	36	X X X X	X X X X	8
35	3	1	35	X X X	X	4
34	4	2	34	X X X X	X X	6
33	1	2	33	X	X X	3
32	2	3	32	X X	X X X	5
31	2	3	31	X X	X X X	5
30	1	1	30	X	X	2
29	0	1	29		X	1
28	0	1	28		X	1
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

PACE

Location: Orange Tree Lane

Between: Nevada Street - Alabama Street

Weather: Clear

Date: 9/9/21

Time From: 1:50

Time To: 2:40

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	16%	14%	18%
% In Pace:	72%	58%	65%
% Under Pace:	12%	28%	17%
Average Speed:	39 MPH	39 MPH	39 MPH
Pace Speed:	34 - 43 MPH	36 - 45 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	34 MPH	32 MPH	33 MPH
50th Percentile / Critical Speed:	39 MPH	38 MPH	39 MPH
85th Percentile / Critical Speed:	44 MPH	45 MPH	44 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	0	0	43			0	
42	0	0	42			0	
41	0	0	41			0	
40	0	0	40			0	
39	0	0	39			0	
38	0	0	38			0	
37	0	0	37			0	
36	2	2	36	X X	X X	4	*
35	3	3	35	X X X	X X X	6	*
34	3	0	34	X X X		3	*
33	2	1	33	X X	X	3	
32	4	1	32	X X X X	X	5	
31	3	1	31	X X X	X	4	
30	0	3	30		X X X	3	
29	2	3	29	X X	X X X	5	*
28	6	3	28	X X X X X X	X X X	9	*
27	3	5	27	X X X	X X X X X	8	*
26	0	1	26		X	1	
25	1	2	25	X	X X	3	
24	2	3	24	X X	X X X	5	
23	1	1	23	X	X	2	
22	3	3	22	X X X	X X X	6	
21	1	1	21	X	X	2	
20	0	1	20		X	1	
19	0	1	19		X	1	
18	0	1	18		X	1	
17	0	1	17		X	1	
16	0	1	16		X	1	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	36	38			GRAND TOTALS	74	

Location: Pacific Street

Between: Crescent Avenue - Carob Street

Weather: Clear

Date: 9/1/21

Time From: 9:00

Time To: 12:15

Existing Speed Limit: 25 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	0%	18%	0%
% In Pace:	78%	66%	68%
% Under Pace:	22%	16%	32%
Average Speed:	29 MPH	27 MPH	28 MPH
Pace Speed:	27 - 36 MPH	22 - 31 MPH	27 - 36 MPH
15th Percentile / Critical Speed:	24 MPH	21 MPH	22 MPH
50th Percentile / Critical Speed:	29 MPH	27 MPH	28 MPH
85th Percentile / Critical Speed:	34 MPH	33 MPH	34 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	0	0	43			0
42	0	0	42			0
41	0	0	41			0
40	0	0	40			0
39	0	0	39			0
38	0	0	38			0
37	0	0	37			0
36	0	0	36			0
35	3	0	35	X X X		3
34	1	2	34	X	X X	3
33	1	0	33	X		1
32	0	0	32			0
31	0	2	31		X X	2
30	2	1	30	X X	X	3
29	4	0	29	X X X X		4
28	2	2	28	X X	X X	4
27	1	4	27	X	X X X X	5
26	1	4	26	X	X X X X	5
25	3	3	25	X X X	X X X	6
24	5	4	24	X X X X X	X X X X	9
23	4	4	23	X X X X	X X X X	8
22	3	0	22	X X X		3
21	1	3	21	X	X X X	4
20	2	2	20	X X	X X	4
19	2	2	19	X X	X X	4
18	3	0	18	X X X		3
17	2	1	17	X X	X	3
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	40	34			GRAND TOTALS	74

Vehicles Surveyed

Location: Pacific Street

Between: Carob Street - Ridge Street

Weather: Clear

Date: 9/1/21

Time From: 12:15

Time To: 3:30

Existing Speed Limit: 20 MPH

PACE	Northbound	Southbound	Combined Statistics
% Over Pace:	13%	15%	16%
% In Pace:	65%	82%	70%
% Under Pace:	23%	3%	14%
Average Speed:	25 MPH	25 MPH	25 MPH
Pace Speed:	21 - 30 MPH	19 - 28 MPH	20 - 29 MPH
15th Percentile / Critical Speed:	19 MPH	21 MPH	20 MPH
50th Percentile / Critical Speed:	24 MPH	25 MPH	24 MPH
85th Percentile / Critical Speed:	30 MPH	28 MPH	30 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	1	0	44	X		1	
43	0	0	43			0	
42	3	0	42	X X X		3	
41	1	2	41	X	X X	3	
40	1	0	40	X		1	
39	1	0	39	X		1	
38	0	2	38		X X	2	
37	5	1	37	X X X X X	X	6	*
36	6	6	36	X X X X X X	X X X X X X	12	*
35	1	2	35	X	X X	3	*
34	3	7	34	X X X	X X X X X X X	10	P
33	5	5	33	X X X X X	X X X X X	10	A
32	4	5	32	X X X X	X X X X X	9	C
31	1	3	31	X	X X X	4	E
30	2	4	30	X X	X X X X	6	*
29	2	3	29	X X	X X X	5	*
28	5	3	28	X X X X X	X X X	8	*
27	3	2	27	X X X	X X	5	
26	0	1	26		X	1	
25	3	2	25	X X X	X X	5	
24	1	2	24	X	X X	3	
23	1	0	23	X		1	
22	1	0	22	X		1	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Palm Avenue

Between: Serpentine Drive - San Mateo Street

Weather: Clear

Date: 9/9/21

Time From: 12:20

Time To: 1:45

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	10%	11%
% In Pace:	68%	80%	73%
% Under Pace:	18%	10%	16%
Average Speed:	33 MPH	32 MPH	32 MPH
Pace Speed:	28 - 37 MPH	27 - 36 MPH	28 - 37 MPH
15th Percentile / Critical Speed:	27 MPH	28 MPH	27 MPH
50th Percentile / Critical Speed:	33 MPH	32 MPH	33 MPH
85th Percentile / Critical Speed:	37 MPH	36 MPH	37 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	2	48		X X	2	
47	0	1	47		X	1	
46	0	1	46		X	1	
45	2	2	45	X X	X X	4	
44	2	1	44	X X	X	3	
43	4	2	43	X X X X	X X	6	*
42	3	5	42	X X X	X X X X X	8	*
41	2	4	41	X X	X X X X	6	*
40	3	8	40	X X X	X X X X X X X X	11	*
39	5	3	39	X X X X X	X X X	8	*
38	5	5	38	X X X X X	X X X X X	10	*
37	2	2	37	X X	X X	4	*
36	4	2	36	X X X X	X X	6	*
35	6	3	35	X X X X X X	X X X	9	*
34	3	4	34	X X X	X X X X	7	*
33	4	1	33	X X X X	X	5	
32	3	2	32	X X X	X X	5	
31	1	0	31	X		1	
30	0	2	30		X X	2	
29	1	0	29	X		1	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Palm Avenue

Between: San Mateo Street - Ford Street

Weather: Clear

Date: 9/9/21

Time From: 11:50

Time To: 12:20

Existing Speed Limit: 40 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	8%	14%	11%
% In Pace:	74%	76%	75%
% Under Pace:	18%	10%	14%
Average Speed:	38 MPH	39 MPH	38 MPH
Pace Speed:	34 - 43 MPH	34 - 43 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	33 MPH	34 MPH	34 MPH
50th Percentile / Critical Speed:	38 MPH	40 MPH	38 MPH
85th Percentile / Critical Speed:	43 MPH	43 MPH	43 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	1	50		X	1	
49	2	3	49	X X	X X X	5	
48	1	2	48	X	X X	3	
47	0	2	47		X X	2	
46	1	0	46	X		1	
45	3	3	45	X X X	X X X	6	
44	0	1	44		X	1	
43	2	3	43	X X	X X X	5	*
42	5	3	42	X X X X X	X X X	8	*
41	4	6	41	X X X X	X X X X X X	10	*
40	4	1	40	X X X X	X	5	*
39	4	2	39	X X X X	X X	6	*
38	2	3	38	X X	X X X	5	*
37	4	2	37	X X X X	X X	6	*
36	3	2	36	X X X	X X	5	*
35	3	4	35	X X X	X X X X	7	*
34	3	1	34	X X X	X	4	*
33	0	1	33		X	1	
32	3	2	32	X X X	X X	5	
31	2	2	31	X X	X X	4	
30	2	0	30	X X		2	
29	2	2	29	X X	X X	4	
28	0	1	28		X	1	
27	0	2	27		X X	2	
26	0	1	26		X	1	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Palmetto Avenue

Between: Nevada Street - California Street

Weather: Clear

Date: 9/9/21

Time From: 3:05

Time To: 3:45

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	22%	19%
% In Pace:	68%	54%	61%
% Under Pace:	18%	24%	20%
Average Speed:	38 MPH	39 MPH	39 MPH
Pace Speed:	34 - 43 MPH	35 - 44 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	32 MPH	31 MPH	32 MPH
50th Percentile / Critical Speed:	39 MPH	40 MPH	39 MPH
85th Percentile / Critical Speed:	43 MPH	47 MPH	45 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	1	1	52	X	X	2	
51	2	0	51	X X		2	
50	0	2	50		X X	2	
49	0	1	49		X	1	
48	0	1	48		X	1	
47	2	1	47	X X	X	3	
46	0	1	46		X	1	
45	1	1	45	X	X	2	
44	1	2	44	X	X X	3	*
43	3	3	43	X X X	X X X	6	*
42	4	4	42	X X X X	X X X X	8	*
41	1	5	41	X	X X X X X	6	*
40	1	2	40	X	X X	3	*
39	4	1	39	X X X X	X	5	*
38	2	1	38	X X	X	3	*
37	4	5	37	X X X X	X X X X X	9	*
36	1	2	36	X	X X	3	*
35	4	3	35	X X X X	X X X	7	*
34	1	2	34	X	X X	3	
33	2	0	33	X X		2	
32	3	4	32	X X X	X X X X	7	
31	2	4	31	X X	X X X X	6	
30	5	1	30	X X X X X	X	6	
29	2	1	29	X X	X	3	
28	1	2	28	X	X X	3	
27	2	0	27	X X		2	
26	0	0	26			0	
25	1	0	25	X		1	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Palmetto Avenue

Between: California Street - Marigold Avenue

Weather: Clear

Date: 9/8/21

Time From: 10:10

Time To: 11:25

Existing Speed Limit: N / P MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	32%	16%	14%
% In Pace:	56%	56%	53%
% Under Pace:	12%	28%	33%
Average Speed:	37 MPH	39 MPH	38 MPH
Pace Speed:	30 - 39 MPH	35 - 44 MPH	35 - 44 MPH
15th Percentile / Critical Speed:	30 MPH	31 MPH	30 MPH
50th Percentile / Critical Speed:	37 MPH	38 MPH	37 MPH
85th Percentile / Critical Speed:	43 MPH	45 MPH	44 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	1	46		X	1	
45	3	0	45	X X X		3	
44	0	1	44		X	1	
43	2	1	43	X X	X	3	
42	1	2	42	X	X X	3	
41	0	2	41		X X	2	
40	5	2	40	X X X X X	X X	7	*
39	2	3	39	X X	X X X	5	*
38	2	2	38	X X	X X	4	*
37	1	3	37	X	X X X	4	
36	2	3	36	X X	X X X	5	
35	2	9	35	X X	X X X X X X X X X	11	
34	6	1	34	X X X X X X	X	7	
33	5	2	33	X X X X X	X X	7	*
32	1	2	32	X	X X	3	*
31	2	4	31	X X	X X X X	6	*
30	2	4	30	X X	X X X X	6	
29	3	1	29	X X X	X	4	
28	2	0	28	X X		2	
27	3	0	27	X X X		3	
26	0	1	26		X	1	
25	0	1	25		X	1	
24	2	2	24	X X	X X	4	
23	2	1	23	X X	X	3	
22	1	0	22	X		1	
21	1	1	21	X	X	2	
20	0	1	20		X	1	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Palo Alto Drive

Between: Country Club Drive - Mirasol Drive

Weather: Clear

Date: 9/9/21

Time From: 9:00

Time To: 11:00

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	12%	18%	13%
% In Pace:	56%	66%	59%
% Under Pace:	32%	16%	28%
Average Speed:	34 MPH	34 MPH	34 MPH
Pace Speed:	31 - 40 MPH	30 - 39 MPH	31 - 40 MPH
15th Percentile / Critical Speed:	27 MPH	29 MPH	27 MPH
50th Percentile / Critical Speed:	34 MPH	35 MPH	34 MPH
85th Percentile / Critical Speed:	40 MPH	40 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	0	0	43			0
42	0	0	42			0
41	0	0	41			0
40	0	0	40			0
39	3	1	39	X X X	X	4
38	2	3	38	X X	X X X	5
37	4	1	37	X X X X	X	5
36	2	3	36	X X	X X X	5
35	1	2	35	X	X X	3
34	1	5	34	X	X X X X X	6
33	9	3	33	X X X X X X X X X	X X X	12
32	5	6	32	X X X X X	X X X X X X	11
31	3	5	31	X X X	X X X X X	8
30	6	5	30	X X X X X X	X X X X X	11
29	5	1	29	X X X X X	X	6
28	2	3	28	X X	X X X	5
27	1	5	27	X	X X X X X	6
26	3	3	26	X X X	X X X	6
25	1	1	25	X	X	2
24	2	1	24	X X	X	3
23	0	1	23		X	1
22	0	0	22			0
21	0	1	21		X	1
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

* * * PACE * * *

Location: Palo Alto Drive

Between: Mirasol Drive - Sunset Drive

Weather: Clear

Date: 9/9/21

Time From: 11:00

Time To: 1:15

Existing Speed Limit: 25 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	6%	10%	19%
% In Pace:	76%	76%	74%
% Under Pace:	18%	14%	7%
Average Speed:	32 MPH	31 MPH	31 MPH
Pace Speed:	29 - 38 MPH	27 - 36 MPH	26 - 35 MPH
15th Percentile / Critical Speed:	28 MPH	27 MPH	27 MPH
50th Percentile / Critical Speed:	32 MPH	31 MPH	32 MPH
85th Percentile / Critical Speed:	37 MPH	36 MPH	36 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	2	48		X X	2
47	0	2	47		X X	2
46	0	1	46		X	1
45	0	0	45			0
44	0	3	44		X X X	3
43	2	1	43	X X	X	3
42	0	4	42		X X X X	4
41	0	2	41		X X	2
40	3	3	40	X X X	X X X	6
39	0	2	39		X X	2
38	5	2	38	X X X X X	X X	7
37	2	2	37	X X	X X	4
36	2	2	36	X X	X X	4
35	7	5	35	X X X X X X X	X X X X X	12
34	3	3	34	X X X	X X X	6
33	3	1	33	X X X	X	4
32	2	3	32	X X	X X X	5
31	6	3	31	X X X X X X	X X X	9
30	5	2	30	X X X X X	X X	7
29	3	2	29	X X X	X X	5
28	1	2	28	X	X X	3
27	1	2	27	X	X X	3
26	1	0	26	X		1
25	2	0	25	X X		2
24	2	1	24	X X	X	3
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

PACE

Location: Pennsylvania Avenue

Between: Texas Street - Orange Street

Weather: Clear

Date: 9/1/21

Time From: 10:50

Time To: 11:30

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	10%	25%
% In Pace:	76%	52%	63%
% Under Pace:	14%	38%	12%
Average Speed:	33 MPH	37 MPH	35 MPH
Pace Speed:	29 - 38 MPH	35 - 44 MPH	29 - 38 MPH
15th Percentile / Critical Speed:	29 MPH	30 MPH	29 MPH
50th Percentile / Critical Speed:	33 MPH	36 MPH	35 MPH
85th Percentile / Critical Speed:	38 MPH	44 MPH	41 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	2	0	44	X X		2
43	2	1	43	X X	X	3
42	2	1	42	X X	X	3
41	1	1	41	X	X	2
40	2	1	40	X X	X	3
39	3	2	39	X X X	X X	5
38	5	3	38	X X X X X	X X X	8
37	1	3	37	X	X X X	4
36	4	2	36	X X X X	X X	6
35	3	2	35	X X X	X X	5
34	2	5	34	X X	X X X X X	7
33	3	4	33	X X X	X X X X	7
32	3	6	32	X X X	X X X X X X	9
31	5	6	31	X X X X X	X X X X X X	11
30	3	3	30	X X X	X X X	6
29	4	4	29	X X X X	X X X X	8
28	3	2	28	X X X	X X	5
27	0	1	27		X	1
26	0	2	26		X X	2
25	2	1	25	X X	X	3
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

PACE

Location: Pennsylvania Avenue

Between: Orange Street - Church Street

Weather: Clear

Date: 9/1/21

Time From: 11:30

Time To: 12:30

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	24%	12%	18%
% In Pace:	66%	76%	71%
% Under Pace:	10%	12%	11%
Average Speed:	35 MPH	33 MPH	34 MPH
Pace Speed:	29 - 38 MPH	29 - 38 MPH	29 - 38 MPH
15th Percentile / Critical Speed:	29 MPH	29 MPH	29 MPH
50th Percentile / Critical Speed:	35 MPH	32 MPH	33 MPH
85th Percentile / Critical Speed:	40 MPH	38 MPH	39 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	4	0	43	X X X X		4
42	3	0	42	X X X		3
41	0	1	41		X	1
40	3	4	40	X X X	X X X X	7
39	3	2	39	X X X	X X	5
38	1	3	38	X	X X X	4
37	2	0	37	X X		2
36	1	3	36	X	X X X	4
35	3	4	35	X X X	X X X X	7
34	4	5	34	X X X X	X X X X X	9
33	4	3	33	X X X X	X X X	7
32	4	6	32	X X X X	X X X X X X	10
31	6	3	31	X X X X X X	X X X	9
30	5	2	30	X X X X X	X X	7
29	1	4	29	X	X X X X	5
28	1	3	28	X	X X X	4
27	3	4	27	X X X	X X X X	7
26	0	1	26		X	1
25	2	2	25	X X	X X	4
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

PACE

Location: Pennsylvania Avenue

Between: Church Street - University Street

Weather: Clear

Date: 9/1/21

Time From: 12:30

Time To: 1:35

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	20%	20%	26%
% In Pace:	66%	74%	69%
% Under Pace:	14%	6%	5%
Average Speed:	34 MPH	33 MPH	33 MPH
Pace Speed:	30 - 39 MPH	27 - 36 MPH	27 - 36 MPH
15th Percentile / Critical Speed:	30 MPH	28 MPH	28 MPH
50th Percentile / Critical Speed:	33 MPH	32 MPH	33 MPH
85th Percentile / Critical Speed:	40 MPH	38 MPH	39 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	1	50		X	1	
49	0	2	49		X X	2	
48	0	0	48			0	
47	0	0	47			0	
46	0	1	46		X	1	
45	0	0	45			0	
44	2	1	44	X X	X	3	
43	1	2	43	X	X X	3	
42	4	2	42	X X X X	X X	6	
41	2	4	41	X X	X X X X	6	
40	4	1	40	X X X X	X	5	*
39	1	3	39	X	X X X	4	*
38	4	1	38	X X X X	X	5	*
37	3	2	37	X X X	X X	5	
36	4	8	36	X X X X	X X X X X X X X	12	
35	3	6	35	X X X	X X X X X X	9	
34	3	2	34	X X X	X X	5	
33	4	5	33	X X X X	X X X X X	9	*
32	4	0	32	X X X X		4	*
31	4	5	31	X X X X	X X X X X	9	*
30	4	1	30	X X X X	X	5	
29	1	1	29	X	X	2	
28	1	1	28	X	X	2	
27	0	1	27		X	1	
26	0	0	26			0	
25	1	0	25	X		1	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Pennsylvania Avenue

Between: University Street - Judson Street

Weather: Clear

Date: 9/1/21

Time From: 2:20

Time To: 3:10

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	18%	14%	22%
% In Pace:	68%	68%	67%
% Under Pace:	14%	18%	11%
Average Speed:	36 MPH	37 MPH	36 MPH
Pace Speed:	31 - 40 MPH	33 - 42 MPH	31 - 40 MPH
15th Percentile / Critical Speed:	31 MPH	31 MPH	31 MPH
50th Percentile / Critical Speed:	35 MPH	36 MPH	36 MPH
85th Percentile / Critical Speed:	41 MPH	42 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	1	46		X	1	
45	0	3	45		X X X	3	
44	4	0	44	X X X X		4	
43	2	3	43	X X	X X X	5	
42	3	4	42	X X X	X X X X	7	
41	3	2	41	X X X	X X	5	*
40	2	5	40	X X	X X X X X	7	*
39	3	2	39	X X X	X X	5	*
38	3	5	38	X X X	X X X X X	8	P
37	5	2	37	X X X X X	X X	7	A
36	4	8	36	X X X X	X X X X X X X X	12	C
35	3	3	35	X X X	X X X	6	E
34	4	5	34	X X X X	X X X X X	9	*
33	1	4	33	X	X X X X	5	*
32	7	1	32	X X X X X X X	X	8	*
31	2	1	31	X X	X	3	
30	3	1	30	X X X	X	4	
29	0	0	29			0	
28	1	0	28	X		1	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Pioneer Avenue

Between: Texas Street - Orange Street

Weather: Clear

Date: 8/31/21

Time From: 12:30

Time To: 1:10

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	18%	14%	20%
% In Pace:	70%	80%	72%
% Under Pace:	12%	6%	8%
Average Speed:	37 MPH	38 MPH	37 MPH
Pace Speed:	32 - 41 MPH	33 - 42 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	32 MPH	34 MPH	32 MPH
50th Percentile / Critical Speed:	36 MPH	37 MPH	37 MPH
85th Percentile / Critical Speed:	42 MPH	42 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	1	50		X	1	
49	0	0	49			0	
48	0	1	48		X	1	
47	0	2	47		X X	2	
46	0	1	46		X	1	
45	2	1	45	X X	X	3	
44	1	3	44	X	X X X	4	
43	2	0	43	X X		2	
42	2	4	42	X X	X X X X	6	
41	5	4	41	X X X X X	X X X X	9	*
40	7	3	40	X X X X X X X	X X X	10	*
39	5	4	39	X X X X X	X X X X	9	*
38	5	1	38	X X X X X	X	6	P
37	4	4	37	X X X X	X X X X	8	A
36	2	2	36	X X	X X	4	C
35	2	1	35	X X	X	3	E
34	3	2	34	X X X	X X	5	*
33	3	1	33	X X X	X	4	*
32	3	4	32	X X X	X X X X	7	*
31	2	2	31	X X	X X	4	
30	0	1	30		X	1	
29	2	4	29	X X	X X X X	6	
28	0	1	28		X	1	
27	0	1	27		X	1	
26	0	0	26			0	
25	0	2	25		X X	2	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Pioneer Avenue

Between: Orange Street - Occidental Drive

Weather: Clear

Date: 8/31/21

Time From: 1:10

Time To: 1:40

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	10%	20%
% In Pace:	78%	52%	65%
% Under Pace:	8%	38%	15%
Average Speed:	38 MPH	37 MPH	37 MPH
Pace Speed:	32 - 41 MPH	36 - 45 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	33 MPH	29 MPH	31 MPH
50th Percentile / Critical Speed:	38 MPH	37 MPH	38 MPH
85th Percentile / Critical Speed:	41 MPH	44 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	1	0	55	X		1
54	1	2	54	X	X X	3
53	1	0	53	X		1
52	0	1	52		X	1
51	0	2	51		X X	2
50	1	2	50	X	X X	3
49	2	0	49	X X		2
48	4	1	48	X X X X	X	5
47	3	0	47	X X X		3
46	3	3	46	X X X	X X X	6
45	4	3	45	X X X X	X X X	7
44	3	1	44	X X X	X	4
43	1	6	43	X	X X X X X X	7
42	3	4	42	X X X	X X X X	7
41	2	3	41	X X	X X X	5
40	2	3	40	X X	X X X	5
39	4	2	39	X X X X	X X	6
38	2	2	38	X X	X X	4
37	4	3	37	X X X X	X X X	7
36	5	1	36	X X X X X	X	6
35	1	2	35	X	X X	3
34	1	4	34	X	X X X X	5
33	1	1	33	X	X	2
32	0	1	32		X	1
31	0	2	31		X X	2
30	1	1	30	X	X	2
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

* * * PACE * * *

Location: Pioneer Avenue

Between: Occidental Drive - Dearborn Street

Weather: Clear

Date: 8/31/21

Time From: 1:40

Time To: 2:20

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	32%	16%	21%
% In Pace:	60%	60%	58%
% Under Pace:	8%	24%	21%
Average Speed:	42 MPH	41 MPH	42 MPH
Pace Speed:	36 - 45 MPH	37 - 46 MPH	37 - 46 MPH
15th Percentile / Critical Speed:	36 MPH	34 MPH	35 MPH
50th Percentile / Critical Speed:	42 MPH	42 MPH	42 MPH
85th Percentile / Critical Speed:	48 MPH	48 MPH	48 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	1	53		X	1	
52	0	1	52		X	1	
51	1	1	51	X	X	2	
50	1	1	50	X	X	2	
49	1	3	49	X	X X X	4	
48	1	2	48	X	X X	3	
47	2	2	47	X X	X X	4	
46	2	1	46	X X	X	3	
45	4	3	45	X X X X	X X X	7	*
44	3	7	44	X X X	X X X X X X X	10	*
43	4	4	43	X X X X	X X X X	8	*
42	3	2	42	X X X	X X	5	
41	3	1	41	X X X	X	4	
40	6	1	40	X X X X X X	X	7	
39	3	5	39	X X X	X X X X X	8	
38	4	1	38	X X X X	X	5	*
37	2	1	37	X X	X	3	*
36	3	3	36	X X X	X X X	6	*
35	4	1	35	X X X X	X	5	
34	1	2	34	X	X X	3	
33	0	3	33		X X X	3	
32	1	2	32	X	X X	3	
31	1	1	31	X	X	2	
30	0	0	30			0	
29	0	1	29		X	1	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Vehicles Surveyed

Location: Pioneer Avenue

Between: Texas Street - Interstate 210 Freeway

Weather: Clear

Date: 8/31/21

Time From: 11:50

Time To: 12:30

Existing Speed Limit: N / P MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	16%	14%	20%
% In Pace:	70%	56%	63%
% Under Pace:	14%	30%	17%
Average Speed:	41 MPH	41 MPH	41 MPH
Pace Speed:	36 - 45 MPH	39 - 48 MPH	36 - 45 MPH
15th Percentile / Critical Speed:	36 MPH	34 MPH	35 MPH
50th Percentile / Critical Speed:	40 MPH	43 MPH	41 MPH
85th Percentile / Critical Speed:	46 MPH	48 MPH	47 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	1	0	53	X		1	
52	0	0	52			0	
51	0	1	51		X	1	
50	1	0	50	X		1	
49	1	0	49	X		1	
48	1	2	48	X	X X	3	
47	1	3	47	X	X X X	4	*
46	3	2	46	X X X	X X	5	*
45	2	0	45	X X		2	*
44	4	5	44	X X X X	X X X X X	9	
43	4	4	43	X X X X	X X X X	8	
42	3	5	42	X X X	X X X X X	8	
41	4	9	41	X X X X	X X X X X X X X X	13	
40	4	3	40	X X X X	X X X	7	*
39	3	2	39	X X X	X X	5	*
38	6	4	38	X X X X X X	X X X X	10	*
37	1	3	37	X	X X X	4	
36	2	2	36	X X	X X	4	
35	1	0	35	X		1	
34	2	2	34	X X	X X	4	
33	3	0	33	X X X		3	
32	1	3	32	X	X X X	4	
31	2	0	31	X X		2	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Redlands Boulevard

Between: California Street - Texas Street

Weather: Clear

Date: 8/23/21

Time From: 2:40

Time To: 3:00

Existing Speed Limit: 40 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	8%	6%	7%
% In Pace:	68%	74%	71%
% Under Pace:	24%	20%	22%
Average Speed:	40 MPH	41 MPH	41 MPH
Pace Speed:	38 - 47 MPH	38 - 47 MPH	38 - 47 MPH
15th Percentile / Critical Speed:	34 MPH	37 MPH	36 MPH
50th Percentile / Critical Speed:	40 MPH	41 MPH	41 MPH
85th Percentile / Critical Speed:	46 MPH	46 MPH	46 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	1	45		X	1	
44	1	2	44	X	X X	3	
43	3	1	43	X X X	X	4	
42	0	3	42		X X X	3	*
41	1	7	41	X	X X X X X X X	8	*
40	1	2	40	X	X X	3	*
39	6	4	39	X X X X X X	X X X X	10	
38	4	1	38	X X X X	X	5	
37	3	3	37	X X X	X X X	6	
36	5	7	36	X X X X X	X X X X X X X	12	
35	8	6	35	X X X X X X X X	X X X X X X	14	*
34	3	1	34	X X X	X	4	*
33	6	3	33	X X X X X X	X X X	9	*
32	2	1	32	X X	X	3	
31	3	3	31	X X X	X X X	6	
30	3	2	30	X X X	X X	5	
29	0	2	29		X X	2	
28	1	1	28	X	X	2	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Redlands Boulevard

Between: Texas Street - Eureka Street

Weather: Clear

Date: 8/25/21

Time From: 2:20

Time To: 2:40

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	12%	8%	8%
% In Pace:	86%	74%	74%
% Under Pace:	2%	18%	18%
Average Speed:	36 MPH	37 MPH	36 MPH
Pace Speed:	30 - 39 MPH	33 - 42 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	32 MPH	31 MPH	31 MPH
50th Percentile / Critical Speed:	35 MPH	36 MPH	36 MPH
85th Percentile / Critical Speed:	39 MPH	41 MPH	41 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	0	0	43			0	
42	0	0	42			0	
41	0	0	41			0	
40	2	0	40	X X		2	
39	1	0	39	X		1	
38	1	0	38	X		1	
37	2	1	37	X X	X	3	
36	0	0	36			0	
35	1	0	35	X		1	
34	0	2	34		X X	2	
33	2	2	33	X X	X X	4	*
32	1	5	32	X	X X X X X	6	*
31	3	4	31	X X X	X X X X	7	*
30	5	2	30	X X X X X	X X	7	*
29	7	13	29	X X X X X X X	X X X X X X X X X X X X X	20	*
28	6	8	28	X X X X X X	X X X X X X X X	14	*
27	7	4	27	X X X X X X X	X X X X	11	*
26	6	1	26	X X X X X X	X	7	*
25	4	3	25	X X X X	X X X	7	*
24	2	1	24	X X	X	3	*
23	0	4	23		X X X X	4	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Redlands Boulevard

Between: Eureka Street - Citrus Avenue

Weather: Clear

Date: 8/25/21

Time From: 2:00

Time To: 2:20

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	10%	10%
% In Pace:	86%	90%	86%
% Under Pace:	0%	0%	4%
Average Speed:	29 MPH	29 MPH	29 MPH
Pace Speed:	24 - 33 MPH	23 - 32 MPH	24 - 33 MPH
15th Percentile / Critical Speed:	26 MPH	25 MPH	26 MPH
50th Percentile / Critical Speed:	28 MPH	29 MPH	29 MPH
85th Percentile / Critical Speed:	33 MPH	32 MPH	32 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	2	48		X X	2	
47	1	0	47	X		1	
46	0	2	46		X X	2	
45	1	3	45	X	X X X	4	
44	3	1	44	X X X	X	4	
43	0	2	43		X X	2	
42	3	2	42	X X X	X X	5	*
41	0	4	41		X X X X	4	*
40	2	4	40	X X	X X X X	6	*
39	2	2	39	X X	X X	4	
38	8	3	38	X X X X X X X X	X X X	11	
37	4	6	37	X X X X	X X X X X X	10	
36	8	4	36	X X X X X X X X	X X X X	12	
35	3	2	35	X X X	X X	5	*
34	3	3	34	X X X	X X X	6	*
33	4	6	33	X X X X	X X X X X X	10	*
32	3	1	32	X X X	X	4	
31	1	2	31	X	X X	3	
30	2	1	30	X X	X	3	
29	1	0	29	X		1	
28	0	0	28			0	
27	0	0	27			0	
26	1	0	26	X		1	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Redlands Boulevard

Between: Citrus Avenue - Highland Avenue

Weather: Clear

Date: 8/25/21

Time From: 1:40

Time To: 2:00

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	16%	20%	15%
% In Pace:	76%	72%	73%
% Under Pace:	8%	8%	12%
Average Speed:	37 MPH	38 MPH	37 MPH
Pace Speed:	31 - 40 MPH	33 - 42 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	32 MPH	33 MPH	33 MPH
50th Percentile / Critical Speed:	36 MPH	37 MPH	37 MPH
85th Percentile / Critical Speed:	42 MPH	44 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
75	0	0	75			0	
74	0	0	74			0	
73	0	0	73			0	
72	0	0	72			0	
71	0	0	71			0	
70	0	0	70			0	
69	0	0	69			0	
68	0	0	68			0	
67	0	0	67			0	
66	0	0	66			0	
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	1	0	62	X		1	
61	0	0	61			0	
60	0	2	60		X X	2	
59	1	1	59	X	X	2	
58	1	1	58	X	X	2	
57	2	1	57	X X	X	3	
56	2	1	56	X X	X	3	
55	3	2	55	X X X	X X	5	
54	3	4	54	X X X	X X X X	7	*
53	2	5	53	X X	X X X X X	7	*
52	1	4	52	X	X X X X	5	*
51	2	7	51	X X	X X X X X X X	9	
50	4	2	50	X X X X	X X	6	
49	7	4	49	X X X X X X X	X X X X	11	
48	4	3	48	X X X X	X X X	7	
47	4	2	47	X X X X	X X	6	*
46	0	3	46		X X X	3	*
45	5	3	45	X X X X X	X X X	8	*
44	2	2	44	X X	X X	4	
43	3	0	43	X X X		3	
42	1	2	42	X	X X	3	
41	0	1	41		X	1	
40	0	0	40			0	
39	0	0	39			0	
38	1	0	38	X		1	
37	1	0	37	X		1	
36	0	0	36			0	
35	0	0	35			0	
34	0	0	34			0	
33	0	0	33			0	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
Total	50	50			GRAND TOTALS	100	

Location: Redlands Boulevard

Between: Highland Avenue - Ford Street

Weather: Clear

Date: 8/25/21

Time From: 1:20

Time To: 1:40

Existing Speed Limit: 50 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	16%	18%
% In Pace:	64%	74%	69%
% Under Pace:	26%	10%	13%
Average Speed:	49 MPH	51 MPH	50 MPH
Pace Speed:	47 - 56 MPH	45 - 54 MPH	45 - 54 MPH
15th Percentile / Critical Speed:	44 MPH	45 MPH	45 MPH
50th Percentile / Critical Speed:	49 MPH	51 MPH	50 MPH
85th Percentile / Critical Speed:	55 MPH	55 MPH	55 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	2	0	59	X X		2	
58	1	0	58	X		1	
57	2	0	57	X X		2	
56	0	0	56			0	
55	3	0	55	X X X		3	
54	4	0	54	X X X X		4	
53	2	2	53	X X	X X	4	
52	5	2	52	X X X X X	X X	7	*
51	6	2	51	X X X X X X	X X	8	*
50	4	4	50	X X X X	X X X X	8	*
49	3	1	49	X X X	X	4	
48	3	3	48	X X X	X X X	6	
47	3	5	47	X X X	X X X X X	8	
46	2	8	46	X X	X X X X X X X X	10	
45	1	4	45	X	X X X X	5	*
44	1	3	44	X	X X X	4	*
43	3	2	43	X X X	X X	5	*
42	1	2	42	X	X X	3	
41	2	3	41	X X	X X X	5	
40	1	1	40	X	X	2	
39	1	4	39	X	X X X X	5	
38	0	1	38		X	1	
37	0	1	37		X	1	
36	0	2	36		X X	2	
35	0	0	35			0	
34	0	0	34			0	
33	0	0	33			0	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Reservoir Road

Between: Ford Street - Wabash Avenue

Weather: Clear

Date: 8/26/21

Time From: 1:10

Time To: 1:40

Existing Speed Limit: 45 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	12%	16%
% In Pace:	70%	70%	65%
% Under Pace:	20%	18%	19%
Average Speed:	50 MPH	45 MPH	47 MPH
Pace Speed:	46 - 55 MPH	41 - 50 MPH	43 - 52 MPH
15th Percentile / Critical Speed:	43 MPH	39 MPH	41 MPH
50th Percentile / Critical Speed:	50 MPH	46 MPH	47 MPH
85th Percentile / Critical Speed:	55 MPH	50 MPH	53 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	1	49		X	1
48	0	0	48			0
47	0	0	47			0
46	1	3	46	X	X X X	4
45	1	0	45	X		1
44	2	1	44	X X	X	3
43	2	1	43	X X	X	3
42	2	2	42	X X	X X	4
41	3	2	41	X X X	X X	5
40	2	2	40	X X	X X	4
39	3	0	39	X X X		3
38	5	3	38	X X X X X	X X X	8
37	4	1	37	X X X X	X	5
36	5	5	36	X X X X X	X X X X X	10
35	2	3	35	X X	X X X	5
34	2	2	34	X X	X X	4
33	2	6	33	X X	X X X X X X	8
32	1	3	32	X	X X X	4
31	1	2	31	X	X X	3
30	4	4	30	X X X X	X X X X	8
29	3	4	29	X X X	X X X X	7
28	0	0	28			0
27	1	2	27	X	X X	3
26	2	2	26	X X	X X	4
25	0	0	25			0
24	1	0	24	X		1
23	1	0	23	X		1
22	0	1	22		X	1
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

PACE

Location: Rossmont Drive

Between: Garden Street - Sunset Drive

Weather: Clear

Date: 9/9/21

Time From: 11:20

Time To: 1:10

Existing Speed Limit: 25 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	4%	24%	28%
% In Pace:	60%	66%	62%
% Under Pace:	36%	10%	10%
Average Speed:	36 MPH	35 MPH	35 MPH
Pace Speed:	35 - 44 MPH	29 - 38 MPH	29 - 38 MPH
15th Percentile / Critical Speed:	29 MPH	29 MPH	29 MPH
50th Percentile / Critical Speed:	36 MPH	34 MPH	36 MPH
85th Percentile / Critical Speed:	42 MPH	42 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	2	56		X X	2	
55	0	0	55			0	
54	0	1	54		X	1	
53	0	0	53			0	
52	1	1	52	X	X	2	
51	3	1	51	X X X	X	4	
50	0	1	50		X	1	
49	0	3	49		X X X	3	
48	1	2	48	X	X X	3	
47	2	4	47	X X	X X X X	6	*
46	6	4	46	X X X X X X	X X X X	10	*
45	3	5	45	X X X	X X X X X	8	*
44	6	2	44	X X X X X X	X X	8	P
43	4	6	43	X X X X	X X X X X X	10	A
42	2	3	42	X X	X X X	5	C
41	2	5	41	X X	X X X X X	7	E
40	1	5	40	X	X X X X X	6	*
39	6	3	39	X X X X X X	X X X	9	*
38	4	1	38	X X X X	X	5	*
37	5	0	37	X X X X X		5	
36	2	0	36	X X		2	
35	1	0	35	X		1	
34	1	1	34	X	X	2	
33	0	0	33			0	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: San Bernardino Avenue

Between: Tennessee Street - Orange Street

Weather: Clear

Date: 8/25/21

Time From: 9:25

Time To: 9:45

Existing Speed Limit: 45 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	12%	16%
% In Pace:	78%	78%	74%
% Under Pace:	8%	10%	10%
Average Speed:	42 MPH	45 MPH	43 MPH
Pace Speed:	37 - 46 MPH	40 - 49 MPH	38 - 47 MPH
15th Percentile / Critical Speed:	37 MPH	40 MPH	38 MPH
50th Percentile / Critical Speed:	43 MPH	44 MPH	43 MPH
85th Percentile / Critical Speed:	46 MPH	49 MPH	48 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	1	0	51	X		1	
50	1	0	50	X		1	
49	4	0	49	X X X X		4	
48	0	2	48		X X	2	
47	1	1	47	X	X	2	
46	2	1	46	X X	X	3	
45	1	1	45	X	X	2	
44	1	1	44	X	X	2	
43	7	4	43	X X X X X X X	X X X X	11	*
42	5	5	42	X X X X X	X X X X X	10	*
41	5	5	41	X X X X X	X X X X X	10	*
40	2	3	40	X X	X X X	5	*
39	4	4	39	X X X X	X X X X	8	*
38	4	2	38	X X X X	X X	6	*
37	3	5	37	X X X	X X X X X	8	*
36	3	3	36	X X X	X X X	6	*
35	1	4	35	X	X X X X	5	*
34	1	3	34	X	X X X	4	*
33	3	3	33	X X X	X X X	6	*
32	0	1	32		X	1	
31	1	0	31	X		1	
30	0	1	30		X	1	
29	0	1	29		X	1	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: San Bernardino Avenue

Between: Orange Street - University Street

Weather: Clear

Date: 8/25/21

Time From: 9:45

Time To: 10:05

Existing Speed Limit: 35 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	18%	12%	17%
% In Pace:	70%	76%	73%
% Under Pace:	12%	12%	10%
Average Speed:	41 MPH	39 MPH	40 MPH
Pace Speed:	36 - 45 MPH	34 - 43 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	36 MPH	34 MPH	35 MPH
50th Percentile / Critical Speed:	41 MPH	39 MPH	40 MPH
85th Percentile / Critical Speed:	46 MPH	43 MPH	44 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	0	58			0
57	0	0	57			0
56	0	0	56			0
55	0	0	55			0
54	1	0	54	X		1
53	1	0	53	X		1
52	0	0	52			0
51	2	2	51	X X	X X	4
50	2	1	50	X X	X	3
49	1	1	49	X	X	2
48	1	1	48	X	X	2
47	1	0	47	X		1
46	7	2	46	X X X X X X X	X X	9
45	2	6	45	X X	X X X X X X	8
44	4	5	44	X X X X	X X X X X	9
43	4	4	43	X X X X	X X X X	8
42	4	3	42	X X X X	X X X	7
41	5	1	41	X X X X X	X	6
40	4	6	40	X X X X	X X X X X X	10
39	4	3	39	X X X X	X X X	7
38	2	3	38	X X	X X X	5
37	1	4	37	X	X X X X	5
36	0	2	36		X X	2
35	1	3	35	X	X X X	4
34	2	1	34	X X	X	3
33	0	1	33		X	1
32	1	0	32	X		1
31	0	1	31		X	1
30	0	0	30			0
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

PACE *

Location: San Bernardino Avenue

Between: University Street - Wabash Avenue

Weather: Clear

Date: 8/25/21

Time From: 10:05

Time To: 10:35

Existing Speed Limit: 45 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	16%	10%	14%
% In Pace:	74%	74%	74%
% Under Pace:	10%	16%	12%
Average Speed:	43 MPH	41 MPH	42 MPH
Pace Speed:	38 - 47 MPH	37 - 46 MPH	37 - 46 MPH
15th Percentile / Critical Speed:	39 MPH	36 MPH	37 MPH
50th Percentile / Critical Speed:	43 MPH	41 MPH	42 MPH
85th Percentile / Critical Speed:	48 MPH	45 MPH	46 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
65	0	0	65			0
64	0	0	64			0
63	0	0	63			0
62	0	0	62			0
61	0	0	61			0
60	0	0	60			0
59	0	0	59			0
58	0	3	58		X X X	3
57	1	1	57	X	X	2
56	0	0	56			0
55	0	3	55		X X X	3
54	3	2	54	X X X	X X	5
53	2	1	53	X X	X	3
52	4	1	52	X X X X	X	5
51	2	3	51	X X	X X X	5
50	1	2	50	X	X X	3
49	5	2	49	X X X X X	X X	7
48	4	8	48	X X X X	X X X X X X X X	12
47	5	5	47	X X X X X	X X X X X	10
46	4	3	46	X X X X	X X X	7
45	2	2	45	X X	X X	4
44	2	2	44	X X	X X	4
43	2	2	43	X X	X X	4
42	1	0	42	X		1
41	4	1	41	X X X X	X	5
40	2	1	40	X X	X	3
39	2	0	39	X X		2
38	0	2	38		X X	2
37	1	1	37	X	X	2
36	0	1	36		X	1
35	0	1	35		X	1
34	1	3	34	X	X X X	4
33	2	0	33	X X		2
32	0	0	32			0
31	0	0	31			0
30	0	0	30			0
29	0	0	29			0
28	0	0	28			0
27	0	0	27			0
26	0	0	26			0
25	0	0	25			0
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

PACE

Location: San Bernardino Avenue

Between: Mountain View Avenue - California Street

Weather: Clear

Date: 8/25/21

Time From: 9:00

Time To: 9:20

Existing Speed Limit: 45 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	2%	8%	8%
% In Pace:	64%	60%	61%
% Under Pace:	34%	32%	31%
Average Speed:	46 MPH	47 MPH	47 MPH
Pace Speed:	45 - 54 MPH	46 - 55 MPH	45 - 54 MPH
15th Percentile / Critical Speed:	40 MPH	38 MPH	40 MPH
50th Percentile / Critical Speed:	47 MPH	48 MPH	47 MPH
85th Percentile / Critical Speed:	52 MPH	54 MPH	53 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	1	0	47	X		1	
46	1	1	46	X	X	2	
45	1	1	45	X	X	2	
44	0	2	44		X X	2	
43	0	0	43			0	
42	1	2	42	X	X X	3	
41	2	3	41	X X	X X X	5	*
40	0	5	40		X X X X X	5	*
39	1	4	39	X	X X X X	5	*
38	6	4	38	X X X X X X	X X X X	10	*
37	1	4	37	X	X X X X	5	*
36	6	5	36	X X X X X X	X X X X X	11	*
35	6	3	35	X X X X X X	X X X	9	*
34	12	7	34	X X X X X X X X X X X X	X X X X X X X	19	*
33	6	2	33	X X X X X X	X X	8	*
32	3	2	32	X X X	X X	5	*
31	2	2	31	X X	X X	4	
30	0	0	30			0	
29	0	2	29		X X	2	
28	0	1	28		X	1	
27	1	0	27	X		1	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: San Mateo Street

Between: Brookside Avenue - Fern Avenue

Weather: Clear

Date: 8/24/21

Time From: 11:15

Time To: 11:35

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	8%	8%	10%
% In Pace:	86%	78%	82%
% Under Pace:	6%	14%	8%
Average Speed:	36 MPH	37 MPH	36 MPH
Pace Speed:	32 - 41 MPH	33 - 42 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	33 MPH	33 MPH	33 MPH
50th Percentile / Critical Speed:	35 MPH	37 MPH	36 MPH
85th Percentile / Critical Speed:	38 MPH	41 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	1	47		X	1	
46	0	0	46			0	
45	0	0	45			0	
44	0	2	44		X X	2	
43	1	1	43	X	X	2	
42	2	3	42	X X	X X X	5	*
41	0	1	41		X	1	*
40	3	0	40	X X X		3	*
39	7	6	39	X X X X X X X	X X X X X X	13	
38	1	4	38	X	X X X X	5	
37	5	4	37	X X X X X	X X X X	9	
36	10	4	36	X X X X X X X X X X	X X X X	14	
35	5	10	35	X X X X X	X X X X X X X X X X	15	*
34	4	7	34	X X X X	X X X X X X X	11	*
33	5	4	33	X X X X X	X X X X	9	*
32	2	1	32	X X	X	3	
31	1	1	31	X	X	2	
30	1	1	30	X	X	2	
29	2	0	29	X X		2	
28	0	0	28			0	
27	0	0	27			0	
26	1	0	26	X		1	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: San Mateo Street

Between: Fern Avenue - Highland Avenue

Weather: Clear

Date: 8/24/21

Time From: 11:35

Time To: 12:00

Existing Speed Limit: 30 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	6%	8%	5%
% In Pace:	86%	86%	85%
% Under Pace:	8%	6%	10%
Average Speed:	36 MPH	37 MPH	36 MPH
Pace Speed:	31 - 40 MPH	33 - 42 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	33 MPH	34 MPH	33 MPH
50th Percentile / Critical Speed:	36 MPH	36 MPH	36 MPH
85th Percentile / Critical Speed:	39 MPH	41 MPH	39 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	1	0	53	X		1	
52	0	1	52		X	1	
51	2	2	51	X X	X X	4	
50	1	0	50	X		1	
49	1	5	49	X	X X X X X	6	
48	1	1	48	X	X	2	
47	3	2	47	X X X	X X	5	*
46	2	3	46	X X	X X X	5	*
45	1	5	45	X	X X X X X	6	*
44	4	2	44	X X X X	X X	6	P
43	4	4	43	X X X X	X X X X	8	A
42	6	1	42	X X X X X X	X	7	C
41	7	7	41	X X X X X X X	X X X X X X X	14	E
40	3	3	40	X X X	X X X	6	*
39	1	3	39	X	X X X	4	*
38	5	4	38	X X X X X	X X X X	9	*
37	1	1	37	X	X	2	
36	1	1	36	X	X	2	
35	2	0	35	X X		2	
34	0	1	34		X	1	
33	2	0	33	X X		2	
32	2	1	32	X X	X	3	
31	0	2	31		X X	2	
30	0	1	30		X	1	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: San Timoteo Canyon Road

Between: Fern Avenue - Barton Road

Weather: Clear

Date: 8/25/21

Time From: 11:45

Time To: 12:20

Existing Speed Limit: 45 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	12%	18%	15%
% In Pace:	72%	68%	70%
% Under Pace:	16%	14%	15%
Average Speed:	42 MPH	42 MPH	42 MPH
Pace Speed:	38 - 47 MPH	38 - 47 MPH	38 - 47 MPH
15th Percentile / Critical Speed:	37 MPH	38 MPH	37 MPH
50th Percentile / Critical Speed:	42 MPH	42 MPH	42 MPH
85th Percentile / Critical Speed:	47 MPH	49 MPH	47 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Vehicles Surveyed: Eastbound	Vehicles Surveyed: Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	2	0	51	X X		2	
50	1	2	50	X	X X	3	
49	1	1	49	X	X	2	
48	0	1	48		X	1	
47	1	1	47	X	X	2	
46	0	1	46		X	1	
45	2	1	45	X X	X	3	
44	0	2	44		X X	2	
43	2	3	43	X X	X X X	5	*
42	5	2	42	X X X X X	X X	7	*
41	1	1	41	X	X	2	*
40	3	10	40	X X X	X X X X X X X X X X	13	
39	0	2	39		X X	2	
38	4	3	38	X X X X	X X X	7	
37	2	5	37	X X	X X X X X	7	
36	3	1	36	X X X	X	4	*
35	2	0	35	X X		2	*
34	3	3	34	X X X	X X X	6	*
33	2	3	33	X X	X X X	5	
32	1	0	32	X		1	
31	2	2	31	X X	X X	4	
30	2	2	30	X X	X X	4	
29	2	1	29	X X	X	3	
28	1	0	28	X		1	
27	0	2	27		X X	2	
26	0	0	26			0	
25	1	0	25	X		1	
24	3	1	24	X X X	X	4	
23	1	0	23	X		1	
22	1	0	22	X		1	
21	1	0	21	X		1	
20	1	0	20	X		1	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Sunset Drive

Between: Vinton Way - Alta Vista Drive

Weather: Clear

Date: 9/1/21

Time From: 9:00

Time To: 11:30

Existing Speed Limit: 30 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	10%	16%
% In Pace:	50%	60%	55%
% Under Pace:	36%	30%	29%
Average Speed:	36 MPH	38 MPH	37 MPH
Pace Speed:	34 - 43 MPH	37 - 46 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	25 MPH	31 MPH	29 MPH
50th Percentile / Critical Speed:	36 MPH	39 MPH	38 MPH
85th Percentile / Critical Speed:	43 MPH	44 MPH	44 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	3	0	43	X X X		3	
42	0	1	42		X	1	
41	0	0	41			0	
40	1	1	40	X	X	2	
39	3	0	39	X X X		3	
38	1	1	38	X	X	2	
37	1	4	37	X	X X X X	5	
36	0	2	36		X X	2	
35	5	2	35	X X X X X	X X	7	*
34	2	7	34	X X	X X X X X X X	9	*
33	2	1	33	X X	X	3	*
32	5	8	32	X X X X X	X X X X X X X X	13	
31	0	6	31		X X X X X X	6	
30	1	3	30	X	X X X	4	
29	8	2	29	X X X X X X X X	X X	10	
28	3	1	28	X X X	X	4	*
27	2	5	27	X X	X X X X X	7	*
26	2	1	26	X X	X	3	*
25	4	0	25	X X X X		4	
24	0	2	24		X X	2	
23	1	0	23	X		1	
22	1	0	22	X		1	
21	1	2	21	X	X X	3	
20	2	1	20	X X	X	3	
19	1	0	19	X		1	
18	1	0	18	X		1	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Sunset Drive

Between: Alta Vista Drive - Panorama Drive

Weather: Clear

Date: 9/1/21

Time From: 11:30

Time To: 3:30

Existing Speed Limit: 30 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	18%	14%	18%
% In Pace:	60%	74%	66%
% Under Pace:	22%	12%	16%
Average Speed:	31 MPH	31 MPH	31 MPH
Pace Speed:	26 - 35 MPH	27 - 36 MPH	26 - 35 MPH
15th Percentile / Critical Speed:	25 MPH	27 MPH	25 MPH
50th Percentile / Critical Speed:	29 MPH	32 MPH	31 MPH
85th Percentile / Critical Speed:	38 MPH	36 MPH	37 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	0	0	43			0	
42	0	0	42			0	
41	0	0	41			0	
40	0	0	40			0	
39	0	0	39			0	
38	0	0	38			0	
37	1	0	37	X		1	
36	2	1	36	X X	X	3	
35	1	0	35	X		1	
34	1	0	34	X		1	
33	2	3	33	X X	X X X	5	*
32	2	1	32	X X	X	3	*
31	3	2	31	X X X	X X	5	*
30	3	2	30	X X X	X X	5	*
29	5	8	29	X X X X X	X X X X X X X X	13	*
28	5	5	28	X X X X X	X X X X X	10	*
27	5	5	27	X X X X X	X X X X X	10	*
26	4	5	26	X X X X	X X X X X	9	*
25	5	6	25	X X X X X	X X X X X X	11	*
24	5	2	24	X X X X X	X X	7	*
23	3	1	23	X X X	X	4	
22	2	1	22	X X	X	3	
21	0	4	21		X X X X	4	
20	1	4	20	X	X X X X	5	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Sunset Drive

Between: Serpentine Road - Vinton Way

Weather: Clear

Date: 9/9/21

Time From: 9:50

Time To: 11:40

Existing Speed Limit: 25 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	18%	6%
% In Pace:	80%	82%	78%
% Under Pace:	6%	0%	16%
Average Speed:	28 MPH	27 MPH	27 MPH
Pace Speed:	23 - 32 MPH	20 - 29 MPH	24 - 33 MPH
15th Percentile / Critical Speed:	24 MPH	21 MPH	23 MPH
50th Percentile / Critical Speed:	27 MPH	27 MPH	27 MPH
85th Percentile / Critical Speed:	32 MPH	30 MPH	31 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Vehicles Surveyed: Eastbound	Vehicles Surveyed: Westbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	1	0	46	X		1	
45	1	1	45	X	X	2	
44	0	1	44		X	1	
43	1	1	43	X	X	2	
42	1	1	42	X	X	2	
41	1	2	41	X	X X	3	
40	3	0	40	X X X		3	
39	2	1	39	X X	X	3	*
38	4	1	38	X X X X	X	5	*
37	0	4	37		X X X X	4	*
36	7	3	36	X X X X X X X	X X X	10	P
35	1	4	35	X	X X X X	5	A
34	5	3	34	X X X X X	X X X	8	C
33	5	3	33	X X X X X	X X X	8	E
32	5	5	32	X X X X X	X X X X X	10	*
31	4	4	31	X X X X	X X X X	8	*
30	1	3	30	X	X X X	4	*
29	2	0	29	X X		2	
28	0	4	28		X X X X	4	
27	3	1	27	X X X	X	4	
26	0	1	26		X	1	
25	3	0	25	X X X		3	
24	0	3	24		X X X	3	
23	0	2	23		X X	2	
22	0	0	22			0	
21	0	2	21		X X	2	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Sunset Drive

Between: Panorama Drive - Franklin Avenue

Weather: Clear

Date: 9/2/21

Time From: 9:00

Time To: 11:25

Existing Speed Limit: 25 MPH

	Eastbound	Westbound	Combined Statistics
% Over Pace:	10%	16%	14%
% In Pace:	72%	66%	65%
% Under Pace:	18%	18%	21%
Average Speed:	34 MPH	33 MPH	33 MPH
Pace Speed:	31 - 40 MPH	28 - 37 MPH	30 - 39 MPH
15th Percentile / Critical Speed:	29 MPH	26 MPH	27 MPH
50th Percentile / Critical Speed:	34 MPH	32 MPH	33 MPH
85th Percentile / Critical Speed:	40 MPH	38 MPH	39 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	0	0	43			0
42	0	0	42			0
41	0	0	41			0
40	0	0	40			0
39	0	0	39			0
38	0	0	38			0
37	0	0	37			0
36	0	0	36			0
35	1	0	35	X		1
34	1	0	34	X		1
33	0	1	33		X	1
32	1	0	32	X		1
31	2	0	31	X X		2
30	3	2	30	X X X	X X	5
29	2	3	29	X X	X X X	5
28	4	2	28	X X X X	X X	6
27	6	4	27	X X X X X X	X X X X	10
26	3	7	26	X X X	X X X X X X X	10
25	4	3	25	X X X X	X X X	7
24	4	8	24	X X X X	X X X X X X X X	12
23	3	4	23	X X X	X X X X	7
22	4	3	22	X X X X	X X X	7
21	6	4	21	X X X X X X	X X X X	10
20	3	4	20	X X X	X X X X	7
19	2	2	19	X X	X X	4
18	1	3	18	X	X X X	4
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

Vehicles Surveyed

PACE

Location: Sunnyside Avenue

Between: Fern Avenue - Cypress Avenue

Weather: Clear

Date: 9/8/21

Time From: 1:45

Time To: 3:00

Existing Speed Limit: 20 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	10%	6%	11%
% In Pace:	78%	84%	81%
% Under Pace:	12%	10%	8%
Average Speed:	25 MPH	24 MPH	25 MPH
Pace Speed:	21 - 30 MPH	20 - 29 MPH	20 - 29 MPH
15th Percentile / Critical Speed:	21 MPH	20 MPH	20 MPH
50th Percentile / Critical Speed:	25 MPH	24 MPH	24 MPH
85th Percentile / Critical Speed:	30 MPH	28 MPH	29 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	0	0	43			0
42	0	0	42			0
41	0	0	41			0
40	0	0	40			0
39	0	0	39			0
38	0	0	38			0
37	0	0	37			0
36	0	0	36			0
35	1	0	35	X		1
34	0	0	34			0
33	2	1	33	X X	X	3
32	1	2	32	X	X X	3
31	1	2	31	X	X X	3
30	3	6	30	X X X	X X X X X X	9
29	5	4	29	X X X X X	X X X X	9
28	6	3	28	X X X X X X	X X X	9
27	1	3	27	X	X X X	4
26	7	9	26	X X X X X X X	X X X X X X X X X	16
25	5	9	25	X X X X X	X X X X X X X X X	14
24	5	2	24	X X X X X	X X	7
23	7	2	23	X X X X X X X	X X	9
22	3	1	22	X X X	X	4
21	0	2	21		X X	2
20	3	3	20	X X X	X X X	6
19	0	1	19		X	1
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

Location: Sunnyside Avenue

Between: Cypress Avenue - Smiley Heights Drive

Weather: Clear

Date: 9/8/21

Time From: 3:00

Time To: 4:00

Existing Speed Limit: 25 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	8%	2%	7%
% In Pace:	86%	84%	84%
% Under Pace:	6%	14%	9%
Average Speed:	26 MPH	26 MPH	26 MPH
Pace Speed:	22 - 31 MPH	23 - 32 MPH	22 - 31 MPH
15th Percentile / Critical Speed:	23 MPH	23 MPH	23 MPH
50th Percentile / Critical Speed:	26 MPH	26 MPH	26 MPH
85th Percentile / Critical Speed:	30 MPH	30 MPH	30 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	1	49		X	1	
48	0	0	48			0	
47	1	2	47	X	X X	3	
46	1	2	46	X	X X	3	
45	2	0	45	X X		2	
44	1	3	44	X	X X X	4	*
43	4	4	43	X X X X	X X X X	8	*
42	6	6	42	X X X X X X	X X X X X X	12	*
41	5	5	41	X X X X X	X X X X X	10	
40	6	4	40	X X X X X X	X X X X	10	
39	7	9	39	X X X X X X X	X X X X X X X X X	16	
38	2	8	38	X X	X X X X X X X X	10	
37	3	2	37	X X X	X X	5	*
36	7	2	36	X X X X X X X	X X	9	*
35	3	1	35	X X X	X	4	*
34	1	1	34	X	X	2	
33	1	0	33	X		1	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Tennessee Street

Between: Colton Avenue - Brookside Avenue

Weather: Clear

Date: 9/9/21

Time From: 9:35

Time To: 9:55

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	8%	10%	9%
% In Pace:	88%	88%	88%
% Under Pace:	4%	2%	3%
Average Speed:	40 MPH	41 MPH	40 MPH
Pace Speed:	35 - 44 MPH	35 - 44 MPH	35 - 44 MPH
15th Percentile / Critical Speed:	36 MPH	38 MPH	36 MPH
50th Percentile / Critical Speed:	40 MPH	40 MPH	40 MPH
85th Percentile / Critical Speed:	43 MPH	44 MPH	43 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	3	0	56	X X X		3	
55	0	0	55			0	
54	0	3	54		X X X	3	
53	0	2	53		X X	2	
52	2	0	52	X X		2	
51	1	4	51	X	X X X X	5	
50	3	1	50	X X X	X	4	*
49	0	2	49		X X	2	*
48	7	3	48	X X X X X X X	X X X	10	*
47	2	2	47	X X	X X	4	P
46	5	6	46	X X X X X	X X X X X X	11	A
45	3	8	45	X X X	X X X X X X X X	11	C
44	2	5	44	X X	X X X X X	7	E
43	8	1	43	X X X X X X X X	X	9	*
42	3	3	42	X X X	X X X	6	*
41	5	3	41	X X X X X	X X X	8	*
40	2	1	40	X X	X	3	
39	0	1	39		X	1	
38	2	2	38	X X	X X	4	
37	1	2	37	X	X X	3	
36	1	1	36	X	X	2	
35	0	0	35			0	
34	0	0	34			0	
33	0	0	33			0	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Terracina Boulevard

Between: Barton Road - Olive Avenue

Weather: Clear

Date: 9/9/21

Time From: 10:00

Time To: 10:20

Existing Speed Limit: 45 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	12%	10%	15%
% In Pace:	76%	70%	72%
% Under Pace:	12%	20%	13%
Average Speed:	45 MPH	45 MPH	45 MPH
Pace Speed:	41 - 50 MPH	42 - 51 MPH	41 - 50 MPH
15th Percentile / Critical Speed:	41 MPH	41 MPH	41 MPH
50th Percentile / Critical Speed:	45 MPH	45 MPH	45 MPH
85th Percentile / Critical Speed:	50 MPH	51 MPH	50 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	1	1	45	X	X	2	
44	1	1	44	X	X	2	
43	0	1	43		X	1	
42	3	2	42	X X X	X X	5	
41	4	2	41	X X X X	X X	6	
40	1	0	40	X		1	
39	2	3	39	X X	X X X	5	*
38	4	2	38	X X X X	X X	6	*
37	4	5	37	X X X X	X X X X X	9	*
36	3	4	36	X X X	X X X X	7	P
35	4	4	35	X X X X	X X X X	8	A
34	4	4	34	X X X X	X X X X	8	C
33	6	2	33	X X X X X X	X X	8	E
32	3	3	32	X X X	X X X	6	*
31	0	4	31		X X X X	4	*
30	6	2	30	X X X X X X	X X	8	*
29	0	3	29		X X X	3	
28	3	3	28	X X X	X X X	6	
27	0	2	27		X X	2	
26	1	1	26	X	X	2	
25	0	1	25		X	1	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Terracina Boulevard

Between: Olive Avenue - Cypress Avenue

Weather: Clear

Date: 9/9/21

Time From: 10:20

Time To: 10:40

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	20%	24%	17%
% In Pace:	72%	68%	69%
% Under Pace:	8%	8%	14%
Average Speed:	35 MPH	34 MPH	35 MPH
Pace Speed:	30 - 39 MPH	28 - 37 MPH	30 - 39 MPH
15th Percentile / Critical Speed:	30 MPH	29 MPH	30 MPH
50th Percentile / Critical Speed:	35 MPH	34 MPH	35 MPH
85th Percentile / Critical Speed:	41 MPH	39 MPH	41 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	2	1	46	X X	X	3	
45	1	0	45	X		1	
44	0	2	44		X X	2	
43	3	1	43	X X X	X	4	
42	3	5	42	X X X	X X X X X	8	*
41	0	2	41		X X	2	*
40	9	4	40	X X X X X X X X X	X X X X	13	*
39	5	4	39	X X X X X	X X X X	9	
38	6	5	38	X X X X X X	X X X X X	11	
37	5	6	37	X X X X X	X X X X X X	11	
36	0	1	36		X	1	
35	3	5	35	X X X	X X X X X	8	*
34	4	3	34	X X X X	X X X	7	*
33	3	2	33	X X X	X X	5	*
32	1	1	32	X	X	2	
31	0	7	31		X X X X X X X	7	
30	2	1	30	X X	X	3	
29	1	0	29	X		1	
28	1	0	28	X		1	
27	1	0	27	X		1	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Texas Avenue

Between: Redlands Boulevard - Lugonia Avenue

Weather: Clear

Date: 8/26/21

Time From: 9:00

Time To: 9:25

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	6%	22%	10%
% In Pace:	76%	76%	75%
% Under Pace:	18%	2%	15%
Average Speed:	38 MPH	37 MPH	37 MPH
Pace Speed:	34 - 43 MPH	31 - 40 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	33 MPH	31 MPH	32 MPH
50th Percentile / Critical Speed:	38 MPH	37 MPH	38 MPH
85th Percentile / Critical Speed:	42 MPH	42 MPH	42 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	1	46		X	1
45	1	0	45	X		1
44	0	0	44			0
43	1	3	43	X	X X X	4
42	3	2	42	X X X	X X	5
41	2	1	41	X X	X	3
40	4	0	40	X X X X		4
39	0	0	39			0
38	4	5	38	X X X X	X X X X X	9
37	7	2	37	X X X X X X X	X X	9
36	3	2	36	X X X	X X	5
35	4	6	35	X X X X	X X X X X X	10
34	2	4	34	X X	X X X X	6
33	6	4	33	X X X X X X	X X X X	10
32	3	5	32	X X X	X X X X X	8
31	1	6	31	X	X X X X X X	7
30	3	3	30	X X X	X X X	6
29	3	2	29	X X X	X X	5
28	0	0	28			0
27	3	2	27	X X X	X X	5
26	0	1	26		X	1
25	0	1	25		X	1
24	0	0	24			0
23	0	0	23			0
22	0	0	22			0
21	0	0	21			0
20	0	0	20			0
19	0	0	19			0
18	0	0	18			0
17	0	0	17			0
16	0	0	16			0
15	0	0	15			0
14	0	0	14			0
13	0	0	13			0
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

PACE

Location: Texas Avenue

Between: Lugonia Avenue - San Bernardino Avenue

Weather: Clear

Date: 8/26/21

Time From: 9:30

Time To: 10:00

Existing Speed Limit: 40 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	22%	14%	18%
% In Pace:	72%	78%	75%
% Under Pace:	6%	8%	7%
Average Speed:	35 MPH	34 MPH	35 MPH
Pace Speed:	29 - 38 MPH	29 - 38 MPH	29 - 38 MPH
15th Percentile / Critical Speed:	30 MPH	30 MPH	30 MPH
50th Percentile / Critical Speed:	35 MPH	34 MPH	35 MPH
85th Percentile / Critical Speed:	40 MPH	38 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	2	45		X X	2	
44	0	0	44			0	
43	0	3	43		X X X	3	
42	1	3	42	X	X X X	4	
41	6	3	41	X X X X X X	X X X	9	*
40	2	4	40	X X	X X X X	6	*
39	2	2	39	X X	X X	4	*
38	0	2	38		X X	2	
37	4	3	37	X X X X	X X X	7	
36	5	1	36	X X X X X	X	6	
35	4	4	35	X X X X	X X X X	8	
34	6	2	34	X X X X X X	X X	8	*
33	4	6	33	X X X X	X X X X X X	10	*
32	4	2	32	X X X X	X X	6	*
31	1	3	31	X	X X X	4	
30	0	2	30		X X	2	
29	1	1	29	X	X	2	
28	3	0	28	X X X		3	
27	1	1	27	X	X	2	
26	2	2	26	X X	X X	4	
25	3	1	25	X X X	X	4	
24	1	2	24	X	X X	3	
23	0	1	23		X	1	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Texas Avenue

Between: San Bernardino Avenue - Domestic Avenue

Weather: Clear

Date: 8/26/21

Time From: 10:05

Time To: 10:45

Existing Speed Limit: 30 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	2%	10%	9%
% In Pace:	74%	60%	66%
% Under Pace:	24%	30%	25%
Average Speed:	34 MPH	35 MPH	35 MPH
Pace Speed:	32 - 41 MPH	33 - 42 MPH	32 - 41 MPH
15th Percentile / Critical Speed:	28 MPH	29 MPH	28 MPH
50th Percentile / Critical Speed:	34 MPH	35 MPH	35 MPH
85th Percentile / Critical Speed:	40 MPH	42 MPH	41 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	1	0	46	X		1	
45	0	0	45			0	
44	2	0	44	X X		2	
43	1	2	43	X	X X	3	
42	4	1	42	X X X X	X	5	
41	2	1	41	X X	X	3	
40	2	4	40	X X	X X X X	6	*
39	2	3	39	X X	X X X	5	*
38	4	7	38	X X X X	X X X X X X X	11	*
37	8	6	37	X X X X X X X X	X X X X X X	14	P
36	5	4	36	X X X X X	X X X X	9	A
35	1	3	35	X	X X X	4	C
34	7	9	34	X X X X X X X	X X X X X X X X X	16	E
33	1	3	33	X	X X X	4	*
32	2	2	32	X X	X X	4	*
31	4	1	31	X X X X	X	5	*
30	3	1	30	X X X	X	4	
29	0	2	29		X X	2	
28	0	1	28		X	1	
27	1	0	27	X		1	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: University Street

Between: Cypress Avenue - Colton Avenue

Weather: Clear

Date: 9/2/21

Time From: 2:20

Time To: 2:40

Existing Speed Limit: 30 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	24%	6%	14%
% In Pace:	74%	84%	78%
% Under Pace:	2%	10%	8%
Average Speed:	36 MPH	36 MPH	36 MPH
Pace Speed:	30 - 39 MPH	32 - 41 MPH	31 - 40 MPH
15th Percentile / Critical Speed:	31 MPH	33 MPH	32 MPH
50th Percentile / Critical Speed:	37 MPH	36 MPH	36 MPH
85th Percentile / Critical Speed:	42 MPH	40 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	1	45		X	1	
44	1	1	44	X	X	2	
43	1	1	43	X	X	2	
42	5	0	42	X X X X X		5	
41	3	1	41	X X X	X	4	
40	3	1	40	X X X	X	4	*
39	3	3	39	X X X	X X X	6	*
38	5	3	38	X X X X X	X X X	8	*
37	4	7	37	X X X X	X X X X X X X	11	P
36	3	5	36	X X X	X X X X X	8	A
35	8	6	35	X X X X X X X X	X X X X X X	14	C
34	6	5	34	X X X X X X	X X X X X	11	E
33	2	7	33	X X	X X X X X X X	9	*
32	1	3	32	X	X X X	4	*
31	3	4	31	X X X	X X X X	7	*
30	1	0	30	X		1	
29	1	1	29	X	X	2	
28	0	1	28		X	1	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: University Street

Between: Colton Avenue - Lugonia Avenue

Weather: Clear

Date: 9/2/21

Time From: 1:40

Time To: 2:00

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	4%	8%	14%
% In Pace:	84%	88%	82%
% Under Pace:	12%	4%	4%
Average Speed:	37 MPH	35 MPH	36 MPH
Pace Speed:	33 - 42 MPH	31 - 40 MPH	31 - 40 MPH
15th Percentile / Critical Speed:	33 MPH	32 MPH	32 MPH
50th Percentile / Critical Speed:	36 MPH	35 MPH	36 MPH
85th Percentile / Critical Speed:	41 MPH	39 MPH	40 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Vehicles Surveyed: Northbound	Vehicles Surveyed: Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	0	0	43			0	
42	0	1	42		X	1	
41	0	2	41		X X	2	
40	0	1	40		X	1	
39	0	0	39			0	
38	1	2	38	X	X X	3	
37	1	0	37	X		1	
36	1	1	36	X	X	2	
35	1	2	35	X	X X	3	
34	4	1	34	X X X X	X	5	
33	2	3	33	X X	X X X	5	
32	8	3	32	X X X X X X X X	X X X	11	*
31	2	3	31	X X	X X X	5	*
30	6	1	30	X X X X X X	X	7	*
29	1	5	29	X	X X X X X	6	P
28	0	3	28		X X X	3	A
27	6	3	27	X X X X X X	X X X	9	C
26	5	3	26	X X X X X	X X X	8	E
25	3	5	25	X X X	X X X X X	8	*
24	4	1	24	X X X X	X	5	*
23	1	5	23	X	X X X X X	6	*
22	2	1	22	X X	X	3	
21	1	1	21	X	X	2	
20	1	3	20	X	X X X	4	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: University Street

Between: Lugonia Avenue - San Bernardino Avenue

Weather: Clear

Date: 9/1/21

Time From: 1:35

Time To: 2:20

Existing Speed Limit: 25 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	8%	26%	23%
% In Pace:	74%	64%	68%
% Under Pace:	18%	10%	9%
Average Speed:	29 MPH	29 MPH	29 MPH
Pace Speed:	25 - 34 MPH	23 - 32 MPH	23 - 32 MPH
15th Percentile / Critical Speed:	24 MPH	23 MPH	23 MPH
50th Percentile / Critical Speed:	30 MPH	28 MPH	29 MPH
85th Percentile / Critical Speed:	34 MPH	35 MPH	34 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	EB	WB	MPH	Eastbound	Westbound	TOT. VEH.
55	0	0	55			0
54	0	0	54			0
53	0	0	53			0
52	0	0	52			0
51	0	0	51			0
50	0	0	50			0
49	0	0	49			0
48	0	0	48			0
47	0	0	47			0
46	0	0	46			0
45	0	0	45			0
44	0	0	44			0
43	0	0	43			0
42	0	0	42			0
41	0	0	41			0
40	0	3	40		X X X	3
39	0	1	39		X	1
38	1	1	38	X	X	2
37	2	0	37	X X		2
36	2	0	36	X X		2
35	2	2	35	X X	X X	4
34	2	1	34	X X	X	3
33	2	1	33	X X	X	3
32	1	3	32	X	X X X	4
31	5	5	31	X X X X X	X X X X X	10
30	3	3	30	X X X	X X X	6
29	4	5	29	X X X X	X X X X X	9
28	1	6	28	X	X X X X X X	7
27	4	1	27	X X X X	X	5
26	2	1	26	X X	X	3
25	5	3	25	X X X X X	X X X	8
24	0	1	24		X	1
23	2	4	23	X X	X X X X	6
22	1	1	22	X	X	2
21	2	2	21	X X	X X	4
20	1	0	20	X		1
19	0	1	19		X	1
18	0	0	18			0
17	0	0	17			0
16	4	2	16	X X X X	X X	6
15	2	1	15	X X	X	3
14	0	0	14			0
13	2	2	13	X X	X X	4
12	0	0	12			0
11	0	0	11			0
10	0	0	10			0
9	0	0	9			0
8	0	0	8			0
7	0	0	7			0
6	0	0	6			0
5	0	0	5			0
Total	50	50			GRAND TOTALS	100

Location: Via Vista Drive

Between: Country Club Drive - Helena Lane

Weather: Clear

Date: 8/31/21

Time From: 9:00

Time To: 4:00

Existing Speed Limit: 25 MPH

PACE	Eastbound	Westbound	Combined Statistics
% Over Pace:	14%	18%	20%
% In Pace:	58%	64%	59%
% Under Pace:	28%	18%	21%
Average Speed:	27 MPH	28 MPH	27 MPH
Pace Speed:	25 - 34 MPH	23 - 32 MPH	23 - 32 MPH
15th Percentile / Critical Speed:	16 MPH	21 MPH	20 MPH
50th Percentile / Critical Speed:	27 MPH	28 MPH	28 MPH
85th Percentile / Critical Speed:	34 MPH	34 MPH	34 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	2	1	55	X X	X	3	
54	0	0	54			0	
53	1	3	53	X	X X X	4	
52	4	1	52	X X X X	X	5	
51	2	2	51	X X	X X	4	*
50	3	0	50	X X X		3	*
49	1	3	49	X	X X X	4	*
48	4	5	48	X X X X	X X X X X	9	P
47	3	3	47	X X X	X X X	6	A
46	2	1	46	X X	X	3	C
45	0	8	45		X X X X X X X X	8	E
44	7	3	44	X X X X X X X	X X X	10	*
43	2	4	43	X X	X X X X	6	*
42	4	4	42	X X X X	X X X X	8	*
41	2	0	41	X X		2	
40	2	3	40	X X	X X X	5	
39	2	2	39	X X	X X	4	
38	4	4	38	X X X X	X X X X	8	
37	0	1	37		X	1	
36	3	1	36	X X X	X	4	
35	1	1	35	X	X	2	
34	0	0	34			0	
33	1	0	33	X		1	
32	0	0	32			0	
31	0	0	31			0	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Wabash Avenue

Between: Fifth Avenue - Citrus Avenue

Weather: Clear

Date: 8/26/21

Time From: 2:20

Time To: 2:40

Existing Speed Limit: 45 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	6%	14%	12%
% In Pace:	56%	68%	61%
% Under Pace:	38%	18%	27%
Average Speed:	45 MPH	45 MPH	45 MPH
Pace Speed:	43 - 52 MPH	40 - 49 MPH	42 - 51 MPH
15th Percentile / Critical Speed:	38 MPH	39 MPH	38 MPH
50th Percentile / Critical Speed:	44 MPH	45 MPH	44 MPH
85th Percentile / Critical Speed:	51 MPH	49 MPH	51 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	2	53		X X	2	
52	2	1	52	X X	X	3	
51	0	1	51		X	1	
50	0	1	50		X	1	
49	2	1	49	X X	X	3	
48	3	0	48	X X X		3	
47	3	1	47	X X X	X	4	
46	4	1	46	X X X X	X	5	
45	1	5	45	X	X X X X X	6	*
44	1	2	44	X	X X	3	*
43	4	6	43	X X X X	X X X X X X	10	*
42	3	4	42	X X X	X X X X	7	P
41	3	4	41	X X X	X X X X	7	A
40	3	4	40	X X X	X X X X	7	C
39	1	7	39	X	X X X X X X X	8	E
38	2	3	38	X X	X X X	5	*
37	5	1	37	X X X X X	X	6	*
36	5	1	36	X X X X X	X	6	*
35	1	0	35	X		1	
34	1	1	34	X	X	2	
33	0	1	33		X	1	
32	2	3	32	X X	X X X	5	
31	1	0	31	X		1	
30	3	0	30	X X X		3	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Wabash Avenue

Between: Citrus Avenue - Colton Avenue

Weather: Clear

Date: 8/26/21

Time From: 2:40

Time To: 3:00

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	28%	12%	22%
% In Pace:	56%	74%	65%
% Under Pace:	16%	14%	13%
Average Speed:	41 MPH	42 MPH	41 MPH
Pace Speed:	36 - 45 MPH	38 - 47 MPH	36 - 45 MPH
15th Percentile / Critical Speed:	35 MPH	38 MPH	36 MPH
50th Percentile / Critical Speed:	41 MPH	41 MPH	41 MPH
85th Percentile / Critical Speed:	47 MPH	46 MPH	47 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	1	52		X	1	
51	0	1	51		X	1	
50	2	2	50	X X	X X	4	
49	0	1	49		X	1	
48	1	1	48	X	X	2	
47	0	0	47			0	
46	1	1	46	X	X	2	
45	3	3	45	X X X	X X X	6	*
44	1	2	44	X	X X	3	*
43	3	4	43	X X X	X X X X	7	*
42	6	6	42	X X X X X X	X X X X X X	12	P
41	2	9	41	X X	X X X X X X X X X	11	A
40	4	0	40	X X X X		4	C
39	4	1	39	X X X X	X	5	E
38	3	4	38	X X X	X X X X	7	*
37	5	4	37	X X X X X	X X X X	9	*
36	4	3	36	X X X X	X X X	7	*
35	2	2	35	X X	X X	4	
34	3	2	34	X X X	X X	5	
33	3	2	33	X X X	X X	5	
32	2	0	32	X X		2	
31	1	1	31	X	X	2	
30	0	0	30			0	
29	0	0	29			0	
28	0	0	28			0	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Wabash Avenue

Between: Colton Avenue - Sessums Drive

Weather: Clear

Date: 8/26/21

Time From: 3:00

Time To: 3:20

Existing Speed Limit: 35 MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	16%	14%	11%
% In Pace:	72%	72%	71%
% Under Pace:	12%	14%	18%
Average Speed:	39 MPH	41 MPH	40 MPH
Pace Speed:	34 - 43 MPH	36 - 45 MPH	36 - 45 MPH
15th Percentile / Critical Speed:	34 MPH	36 MPH	35 MPH
50th Percentile / Critical Speed:	39 MPH	41 MPH	41 MPH
85th Percentile / Critical Speed:	44 MPH	45 MPH	45 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
65	0	0	65			0	
64	0	0	64			0	
63	0	0	63			0	
62	0	0	62			0	
61	0	0	61			0	
60	0	0	60			0	
59	0	0	59			0	
58	0	0	58			0	
57	0	0	57			0	
56	0	0	56			0	
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	1	0	47	X		1	
46	1	1	46	X	X	2	
45	2	2	45	X X	X X	4	
44	2	2	44	X X	X X	4	
43	1	6	43	X	X X X X X X	7	*
42	6	1	42	X X X X X X	X	7	*
41	6	2	41	X X X X X X	X X	8	*
40	3	5	40	X X X	X X X X X	8	*
39	3	1	39	X X X	X	4	
38	4	3	38	X X X X	X X X	7	
37	4	2	37	X X X X	X X	6	
36	2	3	36	X X	X X X	5	*
35	1	2	35	X	X X	3	*
34	4	2	34	X X X X	X X	6	*
33	0	3	33		X X X	3	
32	1	4	32	X	X X X X	5	
31	1	1	31	X	X	2	
30	4	2	30	X X X X	X X	6	
29	0	2	29		X X	2	
28	2	1	28	X X	X	3	
27	1	2	27	X	X X	3	
26	1	1	26	X	X	2	
25	0	1	25		X	1	
24	0	1	24		X	1	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
Total	50	50			GRAND TOTALS	100	

Location: Wabash Avenue

Between: Fifth Avenue - Panorama Drive

Weather: Clear

Date: 9/8/21

Time From: 9:55

Time To: 12:00

Existing Speed Limit: N / P MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	12%	2%	11%
% In Pace:	68%	54%	61%
% Under Pace:	20%	44%	28%
Average Speed:	38 MPH	36 MPH	37 MPH
Pace Speed:	34 - 43 MPH	36 - 45 MPH	34 - 43 MPH
15th Percentile / Critical Speed:	30 MPH	29 MPH	30 MPH
50th Percentile / Critical Speed:	38 MPH	37 MPH	38 MPH
85th Percentile / Critical Speed:	42 MPH	43 MPH	43 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

City of Redlands

Radar Speed Survey

Speed	NB	SB	MPH	Northbound	Southbound	TOT. VEH.	PACE
55	0	0	55			0	
54	0	0	54			0	
53	0	0	53			0	
52	0	0	52			0	
51	0	0	51			0	
50	0	0	50			0	
49	0	0	49			0	
48	0	0	48			0	
47	0	0	47			0	
46	0	0	46			0	
45	0	0	45			0	
44	0	0	44			0	
43	1	1	43	X	X	2	
42	1	0	42	X		1	
41	0	1	41		X	1	
40	1	3	40	X	X X X	4	*
39	4	3	39	X X X X	X X X	7	*
38	6	3	38	X X X X X X	X X X	9	*
37	5	1	37	X X X X X	X	6	P
36	7	6	36	X X X X X X X	X X X X X X	13	A
35	3	6	35	X X X	X X X X X X	9	C
34	2	1	34	X X	X	3	E
33	7	4	33	X X X X X X X	X X X X	11	*
32	5	13	32	X X X X X	X X X X X X X X X X X X X	18	*
31	4	1	31	X X X X	X	5	*
30	2	2	30	X X	X X	4	
29	1	2	29	X	X X	3	
28	1	3	28	X	X X X	4	
27	0	0	27			0	
26	0	0	26			0	
25	0	0	25			0	
24	0	0	24			0	
23	0	0	23			0	
22	0	0	22			0	
21	0	0	21			0	
20	0	0	20			0	
19	0	0	19			0	
18	0	0	18			0	
17	0	0	17			0	
16	0	0	16			0	
15	0	0	15			0	
14	0	0	14			0	
13	0	0	13			0	
12	0	0	12			0	
11	0	0	11			0	
10	0	0	10			0	
9	0	0	9			0	
8	0	0	8			0	
7	0	0	7			0	
6	0	0	6			0	
5	0	0	5			0	
Total	50	50			GRAND TOTALS	100	

Location: Wabash Avenue

Between: Reservoir Road - Palo Alto Drive

Weather: Clear

Date: 8/26/21

Time From: 1:40

Time To: 2:20

Existing Speed Limit: N / P MPH

	Northbound	Southbound	Combined Statistics
% Over Pace:	6%	2%	4%
% In Pace:	90%	82%	85%
% Under Pace:	4%	16%	11%
Average Speed:	35 MPH	34 MPH	35 MPH
Pace Speed:	30 - 39 MPH	32 - 41 MPH	31 - 40 MPH
15th Percentile / Critical Speed:	31 MPH	31 MPH	31 MPH
50th Percentile / Critical Speed:	35 MPH	33 MPH	35 MPH
85th Percentile / Critical Speed:	38 MPH	39 MPH	38 MPH

Radar Survey Conducted By:

Counts Unlimited, Inc.

PO Box 1178

Corona, CA 92880

T 951-268-6268 F 951-268-6267

Appendix C

ADT Traffic Volume Count Sheets

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Redlands
Alabama Street
B/ Barton Road - Park Avenue
24 Hour Directional Volume Count

RED001
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		15	130			17	93				
12:15		9	121			16	134				
12:30		16	89			16	125				
12:45		4	111	44	451	17	97	66	449	110	900
01:00		9	124			7	108				
01:15		8	99			14	131				
01:30		9	102			8	104				
01:45		12	91	38	416	13	121	42	464	80	880
02:00		1	125			9	111				
02:15		1	122			8	127				
02:30		7	**131**			5	117				
02:45		6	**179**	15	557	6	156	28	511	43	1068
03:00		8	**154**			10	144				
03:15		9	**126**			9	105				
03:30		14	126			2	141				
03:45		14	143	45	549	15	144	36	534	81	1083
04:00		21	118			13	132				
04:15		23	113			10	136				
04:30		24	134			17	129				
04:45		28	128	96	493	16	125	56	522	152	1015
05:00		41	120			12	**139**				
05:15		34	107			14	**166**				
05:30		42	110			19	**149**				
05:45		53	102	170	439	24	**157**	69	611	239	1050
06:00		74	123			22	127				
06:15		73	92			43	127				
06:30		90	95			59	129				
06:45		97	88	334	398	67	104	191	487	525	885
07:00		113	97			57	117				
07:15		105	90			92	99				
07:30		**179**	86			99	91				
07:45		**263**	93	660	366	**131**	94	379	401	1039	767
08:00		**184**	76			**118**	95				
08:15		**115**	47			**122**	96				
08:30		132	56			**112**	71				
08:45		113	38	544	217	109	87	461	349	1005	566
09:00		113	48			99	72				
09:15		106	34			78	51				
09:30		108	38			86	50				
09:45		93	33	420	153	87	55	350	228	770	381
10:00		112	37			93	51				
10:15		86	26			104	56				
10:30		122	22			74	37				
10:45		88	21	408	106	91	39	362	183	770	289
11:00		105	19			81	29				
11:15		106	18			75	35				
11:30		103	15			99	25				
11:45		113	15	427	67	90	30	345	119	772	186
Total		3201	4212	3201	4212	2385	4858	2385	4858	5586	9070
Combined Total		7413		7413		7243		7243		14656	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	741	-	-	-	483	-	-	-	-	-
P.H.F.		0.704				0.922					
PM Peak	-	-	02:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	590	-	-	-	611	-	-	-	-
P.H.F.			0.824				0.920				
Percentage		43.2%	56.8%			32.9%	67.1%				
ADT/AADT		ADT 14,656		AADT 14,656							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Redlands
Alabama Street
B/ Park Avenue - Lugonia Avenue
24 Hour Directional Volume Count

RED002
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		26	259			27	182				
12:15		21	199			29	224				
12:30		23	214			28	197				
12:45		17	179	87	851	25	191	109	794	196	1645
01:00		23	220			24	183				
01:15		19	188			17	198				
01:30		29	199			18	194				
01:45		21	202	92	809	30	211	89	786	181	1595
02:00		14	213			18	192				
02:15		14	235			17	**202**				
02:30		16	233			18	**218**				
02:45		8	210	52	891	15	**202**	68	814	120	1705
03:00		14	236			16	**210**				
03:15		20	247			19	172				
03:30		23	247			29	198				
03:45		16	234	73	964	39	230	103	810	176	1774
04:00		25	249			27	205				
04:15		39	**236**			23	180				
04:30		49	**266**			55	194				
04:45		33	**242**	146	993	91	213	196	792	342	1785
05:00		50	**275**			56	189				
05:15		54	220			55	217				
05:30		55	222			79	186				
05:45		62	187	221	904	137	210	327	802	548	1706
06:00		81	202			102	155				
06:15		112	194			109	163				
06:30		114	177			113	181				
06:45		130	181	437	754	176	152	500	651	937	1405
07:00		176	158			162	138				
07:15		154	174			164	145				
07:30		188	136			**239**	156				
07:45		**220**	156	738	624	**279**	131	844	570	1582	1194
08:00		**221**	133			**239**	119				
08:15		**213**	96			**212**	126				
08:30		**191**	107			185	108				
08:45		179	88	804	424	236	102	872	455	1676	879
09:00		188	90			208	113				
09:15		180	68			150	75				
09:30		213	89			171	74				
09:45		188	63	769	310	174	81	703	343	1472	653
10:00		203	74			188	79				
10:15		167	59			199	75				
10:30		215	52			169	53				
10:45		168	38	753	223	180	50	736	257	1489	480
11:00		214	27			180	49				
11:15		192	36			202	47				
11:30		189	38			175	35				
11:45		215	26	810	127	202	41	759	172	1569	299
Total		4982	7874	4982	7874	5306	7246	5306	7246	10288	15120
Combined Total		12856		12856		12552		12552		25408	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	845	-	-	-	969	-	-	-	-	-
P.H.F.		0.956				0.868					
PM Peak	-	-	04:15	-	-	-	02:15	-	-	-	-
Vol.	-	-	1019	-	-	-	832	-	-	-	-
P.H.F.			0.926				0.954				
Percentage		38.8%	61.2%			42.3%	57.7%				
ADT/AADT		ADT 25,408		AADT 25,408							

Counts Unlimited, Inc.

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Phone: (951) 268-6268
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City of Redlands
Alabama Street
B/ City Limit N/ Santa Ana River - S/ Santa Ana River
24 Hour Directional Volume Count

RED003
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		37	156			29	132				
12:15		30	124			35	142				
12:30		36	137			31	146				
12:45		35	190	138	607	27	172	122	592	260	1199
01:00		37	173			21	184				
01:15		23	163			40	162				
01:30		30	191			26	139				
01:45		35	217	125	744	33	160	120	645	245	1389
02:00		26	150			45	153				
02:15		22	190			38	124				
02:30		61	215			32	153				
02:45		23	182	132	737	38	163	153	593	285	1330
03:00		21	159			16	157				
03:15		29	**240**			49	159				
03:30		20	**279**			103	170				
03:45		95	**241**	165	919	129	178	297	664	462	1583
04:00		32	**248**			81	132				
04:15		37	187			57	161				
04:30		45	198			121	191				
04:45		58	216	172	849	137	**188**	396	672	568	1521
05:00		51	250			68	**169**				
05:15		41	222			61	**216**				
05:30		33	192			85	**200**				
05:45		50	194	175	858	107	158	321	743	496	1601
06:00		52	166			60	137				
06:15		67	161			67	138				
06:30		50	124			97	138				
06:45		60	132	229	583	117	121	341	534	570	1117
07:00		67	116			137	136				
07:15		86	122			144	88				
07:30		96	128			**198**	91				
07:45		**122**	108	371	474	**277**	87	756	402	1127	876
08:00		**153**	107			**229**	84				
08:15		**135**	106			**175**	67				
08:30		**132**	97			138	80				
08:45		108	108	528	418	154	66	696	297	1224	715
09:00		108	91			124	69				
09:15		98	98			106	70				
09:30		130	93			133	44				
09:45		129	89	465	371	129	61	492	244	957	615
10:00		119	114			117	66				
10:15		100	131			121	64				
10:30		116	86			135	74				
10:45		114	87	449	418	123	77	496	281	945	699
11:00		129	69			122	57				
11:15		104	55			110	34				
11:30		141	57			142	22				
11:45		129	45	503	226	143	40	517	153	1020	379
Total		3452	7204	3452	7204	4707	5820	4707	5820	8159	13024
Combined Total		10656		10656		10527		10527		21183	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	542	-	-	-	879	-	-	-	-	-
P.H.F.		0.886				0.793					
PM Peak	-	-	03:15	-	-	-	04:45	-	-	-	-
Vol.	-	-	1008	-	-	-	773	-	-	-	-
P.H.F.			0.903				0.895				
Percentage		32.4%	67.6%			44.7%	55.3%				
ADT/AADT		ADT 21,183		AADT 21,183							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Redlands
Alessandro Road
B/ Crescent Avenue - Sunset Drive
24 Hour Directional Volume Count

RED004
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	35			4	41				
12:15		5	40			5	46				
12:30		5	38			2	51				
12:45		10	44	23	157	1	40	12	178	35	335
01:00		2	29			2	45				
01:15		1	66			1	49				
01:30		3	52			2	36				
01:45		3	56	9	203	1	44	6	174	15	377
02:00		4	49			3	55				
02:15		3	55			4	53				
02:30		1	51			0	64				
02:45		0	69	8	224	0	65	7	237	15	461
03:00		2	64			2	53				
03:15		2	68			4	54				
03:30		2	62			1	79				
03:45		4	79	10	273	2	81	9	267	19	540
04:00		0	44			4	75				
04:15		2	51			4	77				
04:30		6	**74**			3	68				
04:45		5	**58**	13	227	7	59	18	279	31	506
05:00		12	**64**			11	**97**				
05:15		13	**81**			14	**70**				
05:30		14	65			13	**73**				
05:45		19	65	58	275	10	**77**	48	317	106	592
06:00		14	52			20	74				
06:15		15	35			23	58				
06:30		33	65			34	44				
06:45		48	34	110	186	32	58	109	234	219	420
07:00		40	33			50	38				
07:15		**78**	25			39	34				
07:30		**95**	31			41	25				
07:45		**70**	30	283	119	41	30	171	127	454	246
08:00		**74**	23			**51**	37				
08:15		70	22			**48**	28				
08:30		51	13			**48**	22				
08:45		50	17	245	75	**45**	17	192	104	437	179
09:00		47	11			32	15				
09:15		41	6			24	18				
09:30		41	12			35	9				
09:45		35	13	164	42	34	12	125	54	289	96
10:00		39	10			32	9				
10:15		29	6			30	16				
10:30		47	10			31	8				
10:45		34	11	149	37	32	13	125	46	274	83
11:00		41	8			23	11				
11:15		46	4			33	5				
11:30		49	7			38	5				
11:45		27	3	163	22	40	2	134	23	297	45
Total		1235	1840	1235	1840	956	2040	956	2040	2191	3880
Combined Total		3075		3075		2996		2996		6071	
AM Peak	-	07:15	-	-	-	08:00	-	-	-	-	-
Vol.	-	317	-	-	-	192	-	-	-	-	-
P.H.F.		0.834				0.941					
PM Peak	-	-	04:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	277	-	-	-	317	-	-	-	-
P.H.F.			0.855				0.817				
Percentage		40.2%	59.8%			31.9%	68.1%				
ADT/AADT		ADT 6,071		AADT 6,071							

Counts Unlimited, Inc.

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City of Redlands
Alessandro Road
B/ Sunset Drive - Creekside Drive
24 Hour Directional Volume Count

RED005
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	30			1	34				
12:15		3	30			5	40				
12:30		5	40			3	33				
12:45		9	36	18	136	3	30	12	137	30	273
01:00		4	28			1	26				
01:15		1	46			2	43				
01:30		2	47			1	31				
01:45		4	48	11	169	3	46	7	146	18	315
02:00		3	48			5	49				
02:15		2	48			1	45				
02:30		1	34			2	69				
02:45		2	60	8	190	0	58	8	221	16	411
03:00		1	63			0	55				
03:15		1	62			3	51				
03:30		3	55			2	54				
03:45		3	75	8	255	2	80	7	240	15	495
04:00		1	60			5	66				
04:15		1	29			2	68				
04:30		4	47			4	56				
04:45		3	**84**	9	220	7	63	18	253	27	473
05:00		6	**62**			9	67				
05:15		14	**86**			11	**102**				
05:30		13	**69**			14	**59**				
05:45		8	55	41	272	14	**72**	48	300	89	572
06:00		26	54			13	**78**				
06:15		12	47			20	60				
06:30		33	50			38	48				
06:45		31	30	102	181	32	45	103	231	205	412
07:00		43	30			46	37				
07:15		71	29			40	38				
07:30		**80**	32			35	33				
07:45		**66**	35	260	126	44	26	165	134	425	260
08:00		**65**	28			**50**	30				
08:15		**76**	18			**40**	24				
08:30		55	18			**45**	22				
08:45		42	16	238	80	**59**	22	194	98	432	178
09:00		42	17			33	14				
09:15		33	7			31	17				
09:30		36	12			22	13				
09:45		38	10	149	46	36	8	122	52	271	98
10:00		33	11			32	13				
10:15		29	10			30	12				
10:30		39	7			26	9				
10:45		34	6	135	34	27	11	115	45	250	79
11:00		30	10			28	11				
11:15		45	7			38	5				
11:30		36	3			27	5				
11:45		35	5	146	25	38	4	131	25	277	50
Total		1125	1734	1125	1734	930	1882	930	1882	2055	3616
Combined Total		2859		2859		2812		2812		5671	
AM Peak	-	07:30	-	-	-	08:00	-	-	-	-	-
Vol.	-	287	-	-	-	194	-	-	-	-	-
P.H.F.		0.897				0.822					
PM Peak	-	-	04:45	-	-	-	05:15	-	-	-	-
Vol.	-	-	301	-	-	-	311	-	-	-	-
P.H.F.			0.875				0.762				
Percentage		39.3%	60.7%			33.1%	66.9%				
ADT/AADT		ADT 5,671		AADT 5,671							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
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City of Redlands
Alessandro Road
B/ Creekside Drive - San Timoteo Canyon Road
24 Hour Directional Volume Count

RED006
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	33			1	39				
12:15		1	33			1	37				
12:30		5	15			4	17				
12:45		10	34	19	115	3	24	9	117	28	232
01:00		3	10			1	25				
01:15		2	51			0	38				
01:30		4	37			2	31				
01:45		3	45	12	143	2	43	5	137	17	280
02:00		3	44			5	41				
02:15		2	40			3	46				
02:30		0	11			0	29				
02:45		2	56	7	151	0	65	8	181	15	332
03:00		2	59			3	53				
03:15		2	57			4	53				
03:30		3	44			1	36				
03:45		3	64	10	224	5	61	13	203	23	427
04:00		0	31			5	41				
04:15		2	8			3	10				
04:30		3	10			5	13				
04:45		3	41	8	90	9	41	22	105	30	195
05:00		9	**73**			10	**78**				
05:15		10	**66**			13	**74**				
05:30		10	**56**			12	**51**				
05:45		18	**51**	47	246	12	**54**	47	257	94	503
06:00		14	44			16	51				
06:15		14	27			19	28				
06:30		32	47			40	42				
06:45		35	28	95	146	29	43	104	164	199	310
07:00		31	30			**51**	28				
07:15		**59**	21			**44**	21				
07:30		**61**	30			**49**	29				
07:45		**54**	36	205	117	**44**	25	188	103	393	220
08:00		**41**	26			45	21				
08:15		52	23			31	22				
08:30		39	17			38	11				
08:45		36	11	168	77	51	16	165	70	333	147
09:00		34	11			35	8				
09:15		28	11			26	17				
09:30		38	10			24	10				
09:45		30	14	130	46	33	6	118	41	248	87
10:00		26	10			28	13				
10:15		29	8			25	16				
10:30		29	5			19	6				
10:45		31	9	115	32	26	5	98	40	213	72
11:00		28	9			28	11				
11:15		39	6			35	3				
11:30		35	3			24	2				
11:45		13	5	115	23	22	1	109	17	224	40
Total		931	1410	931	1410	886	1435	886	1435	1817	2845
Combined Total		2341		2341		2321		2321		4662	
AM Peak	-	07:15	-	-	-	07:00	-	-	-	-	-
Vol.	-	215	-	-	-	188	-	-	-	-	-
P.H.F.		0.881				0.922					
PM Peak	-	-	05:00	-	-	-	05:00	-	-	-	-
Vol.	-	-	246	-	-	-	257	-	-	-	-
P.H.F.			0.842				0.824				
Percentage		39.8%	60.2%			38.2%	61.8%				
ADT/AADT		ADT 4,662		AADT 4,662							

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City of Redlands
Alta Vista Drive
B/ Florida Street - Sunset Drive
24 Hour Directional Volume Count

RED007
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	35			2	28				
12:15		1	11			1	24				
12:30		0	13			3	17				
12:45		1	13	3	72	0	19	6	88	9	160
01:00		4	21			1	12				
01:15		3	19			1	**17**				
01:30		3	14			4	**29**				
01:45		3	15	13	69	2	**31**	8	89	21	158
02:00		3	40			0	**21**				
02:15		2	22			2	13				
02:30		0	24			0	16				
02:45		0	24	5	110	0	11	2	61	7	171
03:00		1	28			1	16				
03:15		0	23			1	22				
03:30		0	**36**			0	27				
03:45		1	**35**	2	122	0	23	2	88	4	210
04:00		2	**37**			0	24				
04:15		1	**36**			0	22				
04:30		2	29			0	14				
04:45		1	39	6	141	3	20	3	80	9	221
05:00		0	37			1	15				
05:15		2	31			1	15				
05:30		5	36			1	24				
05:45		6	32	13	136	7	18	10	72	23	208
06:00		3	25			4	27				
06:15		8	21			10	23				
06:30		10	19			10	10				
06:45		15	13	36	78	10	17	34	77	70	155
07:00		17	16			**20**	19				
07:15		18	15			**22**	21				
07:30		**21**	11			**32**	19				
07:45		**35**	8	91	50	**32**	12	106	71	197	121
08:00		**33**	9			19	13				
08:15		**21**	5			23	18				
08:30		18	2			25	8				
08:45		18	3	90	19	11	11	78	50	168	69
09:00		12	5			18	12				
09:15		11	5			22	6				
09:30		16	8			21	11				
09:45		24	6	63	24	22	7	83	36	146	60
10:00		18	5			22	5				
10:15		20	2			10	5				
10:30		26	3			21	3				
10:45		25	4	89	14	21	5	74	18	163	32
11:00		25	6			25	2				
11:15		18	0			22	5				
11:30		18	1			19	0				
11:45		29	1	90	8	26	4	92	11	182	19
Total		501	843	501	843	498	741	498	741	999	1584
Combined Total		1344		1344		1239		1239		2583	
AM Peak	-	07:30	-	-	-	07:00	-	-	-	-	-
Vol.	-	110	-	-	-	106	-	-	-	-	-
P.H.F.		0.786				0.828					
PM Peak	-	-	03:30	-	-	-	01:15	-	-	-	-
Vol.	-	-	144	-	-	-	98	-	-	-	-
P.H.F.			0.973				0.790				
Percentage		37.3%	62.7%			40.2%	59.8%				
ADT/AADT		ADT 2,583		AADT 2,583							

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City of Redlands
Barton Road
B/ West City Limit - Terracina Boulevard
24 Hour Directional Volume Count

RED008
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		17	214			17	170				
12:15		14	217			17	188				
12:30		12	222			7	152				
12:45		13	198	56	851	13	261	54	771	110	1622
01:00		7	187			10	240				
01:15		8	168			9	192				
01:30		12	182			6	201				
01:45		8	168	35	705	7	163	32	796	67	1501
02:00		4	170			9	172				
02:15		3	185			7	189				
02:30		7	214			10	192				
02:45		12	275	26	844	6	179	32	732	58	1576
03:00		5	220			6	**245**				
03:15		10	227			10	**219**				
03:30		10	250			10	**270**				
03:45		14	252	39	949	9	**206**	35	940	74	1889
04:00		9	267			11	189				
04:15		17	266			14	180				
04:30		12	**300**			22	184				
04:45		33	**270**	71	1103	33	177	80	730	151	1833
05:00		22	**272**			16	227				
05:15		25	**323**			26	159				
05:30		45	283			47	170				
05:45		48	249	140	1127	74	184	163	740	303	1867
06:00		65	221			56	172				
06:15		76	196			97	158				
06:30		85	173			140	155				
06:45		151	184	377	774	159	130	452	615	829	1389
07:00		131	130			147	147				
07:15		161	128			212	121				
07:30		**194**	125			273	153				
07:45		**277**	124	763	507	**280**	117	912	538	1675	1045
08:00		**302**	117			**272**	100				
08:15		**254**	96			**323**	81				
08:30		176	91			**326**	91				
08:45		165	87	897	391	195	77	1116	349	2013	740
09:00		144	80			173	79				
09:15		151	53			156	70				
09:30		148	48			148	55				
09:45		134	40	577	221	132	66	609	270	1186	491
10:00		162	35			149	55				
10:15		133	54			163	35				
10:30		131	50			131	38				
10:45		150	39	576	178	145	34	588	162	1164	340
11:00		171	37			185	34				
11:15		152	25			170	32				
11:30		179	20			180	54				
11:45		179	18	681	100	166	20	701	140	1382	240
Total		4238	7750	4238	7750	4774	6783	4774	6783	9012	14533
Combined Total		11988		11988		11557		11557		23545	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	1027	-	-	-	1201	-	-	-	-	-
P.H.F.		0.850				0.921					
PM Peak	-	-	04:30	-	-	-	03:00	-	-	-	-
Vol.	-	-	1165	-	-	-	940	-	-	-	-
P.H.F.			0.902				0.870				
Percentage		35.4%	64.6%			41.3%	58.7%				
ADT/AADT		ADT 23,545		AADT 23,545							

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City of Redlands
Barton Road
B/ Terracina Boulevard - Alabama Street
24 Hour Directional Volume Count

RED009
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		18	146			11	97				
12:15		8	168			9	130				
12:30		12	166			5	118				
12:45		6	123	44	603	2	133	27	478	71	1081
01:00		6	151			8	185				
01:15		6	113			7	156				
01:30		9	121			2	139				
01:45		6	150	27	535	3	142	20	622	47	1157
02:00		3	155			8	123				
02:15		2	141			5	127				
02:30		7	140			9	127				
02:45		10	196	22	632	4	123	26	500	48	1132
03:00		2	184			5	**168**				
03:15		8	190			7	**155**				
03:30		6	164			5	**169**				
03:45		10	210	26	748	7	**142**	24	634	50	1382
04:00		6	210			6	136				
04:15		8	197			3	105				
04:30		5	**237**			14	117				
04:45		12	**223**	31	867	17	97	40	455	71	1322
05:00		14	**206**			19	107				
05:15		11	**221**			11	131				
05:30		19	236			31	115				
05:45		22	164	66	827	45	130	106	483	172	1310
06:00		27	207			40	125				
06:15		27	147			59	116				
06:30		42	120			86	114				
06:45		62	104	158	578	125	122	310	477	468	1055
07:00		77	98			89	101				
07:15		93	107			137	81				
07:30		130	121			150	87				
07:45		**192**	104	492	430	**178**	95	554	364	1046	794
08:00		**202**	82			**188**	76				
08:15		**155**	76			**214**	70				
08:30		**136**	66			**222**	75				
08:45		94	60	587	284	139	51	763	272	1350	556
09:00		114	61			139	66				
09:15		102	38			97	45				
09:30		105	34			115	47				
09:45		118	27	439	160	99	58	450	216	889	376
10:00		137	34			101	45				
10:15		110	29			131	33				
10:30		109	35			98	26				
10:45		101	27	457	125	128	22	458	126	915	251
11:00		133	24			117	18				
11:15		130	19			99	19				
11:30		136	22			137	11				
11:45		141	10	540	75	110	12	463	60	1003	135
Total		2889	5864	2889	5864	3241	4687	3241	4687	6130	10551
Combined Total		8753		8753		7928		7928		16681	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	685	-	-	-	802	-	-	-	-	-
P.H.F.		0.848				0.903					
PM Peak	-	-	04:30	-	-	-	03:00	-	-	-	-
Vol.	-	-	887	-	-	-	634	-	-	-	-
P.H.F.			0.936				0.938				
Percentage		33.0%	67.0%			40.9%	59.1%				
ADT/AADT		ADT 16,681		AADT 16,681							

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City of Redlands
Barton Road
B/ Alabama Street - Lakeside Avenue
24 Hour Directional Volume Count

RED010
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	99			9	72				
12:15		2	107			5	74				
12:30		4	154			4	69				
12:45		5	114	20	474	0	108	18	323	38	797
01:00		8	110			5	131				
01:15		3	88			3	82				
01:30		3	95			1	90				
01:45		4	114	18	407	5	86	14	389	32	796
02:00		3	126			6	89				
02:15		0	89			0	130				
02:30		5	111			5	98				
02:45		3	154	11	480	4	89	15	406	26	886
03:00		2	147			4	**105**				
03:15		3	134			2	**108**				
03:30		1	119			2	**133**				
03:45		2	150	8	550	1	**109**	9	455	17	1005
04:00		0	172			8	80				
04:15		5	150			3	80				
04:30		1	**196**			5	80				
04:45		2	**184**	8	702	13	70	29	310	37	1012
05:00		2	**159**			16	74				
05:15		5	**208**			9	79				
05:30		9	172			31	83				
05:45		8	145	24	684	29	82	85	318	109	1002
06:00		9	158			28	75				
06:15		14	126			41	79				
06:30		17	82			58	70				
06:45		34	80	74	446	76	84	203	308	277	754
07:00		41	91			67	68				
07:15		91	67			91	55				
07:30		90	86			93	66				
07:45		**145**	61	367	305	**144**	51	395	240	762	545
08:00		**144**	63			**136**	46				
08:15		**137**	54			**157**	49				
08:30		**107**	57			**179**	53				
08:45		66	52	454	226	123	46	595	194	1049	420
09:00		80	46			99	43				
09:15		79	43			66	43				
09:30		68	25			84	41				
09:45		81	21	308	135	62	32	311	159	619	294
10:00		79	20			73	28				
10:15		86	17			83	23				
10:30		70	30			62	13				
10:45		72	16	307	83	68	15	286	79	593	162
11:00		94	20			79	7				
11:15		86	13			80	16				
11:30		99	16			78	6				
11:45		100	15	379	64	100	8	337	37	716	101
Total		1978	4556	1978	4556	2297	3218	2297	3218	4275	7774
Combined Total		6534		6534		5515		5515		12049	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	533	-	-	-	616	-	-	-	-	-
P.H.F.		0.919				0.860					
PM Peak	-	-	04:30	-	-	-	03:00	-	-	-	-
Vol.	-	-	747	-	-	-	455	-	-	-	-
P.H.F.			0.898				0.855				
Percentage		30.3%	69.7%			41.7%	58.3%				
ADT/AADT		ADT 12,049		AADT 12,049							

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City of Redlands
Brockton Avenue
B/ New York Street - Texas Street
24 Hour Directional Volume Count

RED011
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	6			2	7				
12:15		1	8			0	11				
12:30		1	9			0	12				
12:45		1	20	6	43	3	12	5	42	11	85
01:00		2	11			2	12				
01:15		0	7			2	11				
01:30		0	15			0	4				
01:45		0	5	2	38	0	14	4	41	6	79
02:00		3	7			1	13				
02:15		0	10			0	14				
02:30		0	11			0	17				
02:45		0	15	3	43	0	7	1	51	4	94
03:00		1	11			0	16				
03:15		1	**11**			0	13				
03:30		0	**15**			7	**17**				
03:45		0	**14**	2	51	2	**22**	9	68	11	119
04:00		0	**17**			4	**15**				
04:15		0	10			2	**17**				
04:30		0	9			3	13				
04:45		0	12	0	48	9	5	18	50	18	98
05:00		1	15			3	15				
05:15		2	17			6	6				
05:30		5	13			9	7				
05:45		4	9	12	54	8	15	26	43	38	97
06:00		0	16			1	11				
06:15		2	12			7	5				
06:30		2	14			5	5				
06:45		4	8	8	50	12	14	25	35	33	85
07:00		5	9			9	6				
07:15		3	5			9	10				
07:30		4	8			18	6				
07:45		2	2	14	24	8	6	44	28	58	52
08:00		8	8			11	4				
08:15		2	5			11	4				
08:30		1	4			9	9				
08:45		5	7	16	24	18	4	49	21	65	45
09:00		4	7			8	1				
09:15		8	5			10	5				
09:30		6	1			12	1				
09:45		7	1	25	14	9	2	39	9	64	23
10:00		2	4			12	6				
10:15		8	5			**16**	1				
10:30		4	3			**18**	6				
10:45		4	4	18	16	**8**	3	54	16	72	32
11:00		**10**	3			**16**	5				
11:15		**5**	2			9	4				
11:30		**9**	1			13	2				
11:45		**7**	0	31	6	11	2	49	13	80	19
Total		137	411	137	411	323	417	323	417	460	828
Combined Total		548		548		740		740		1288	
AM Peak	-	11:00	-	-	-	10:15	-	-	-	-	-
Vol.	-	31	-	-	-	58	-	-	-	-	-
P.H.F.		0.775				0.806					
PM Peak	-	-	03:15	-	-	-	03:30	-	-	-	-
Vol.	-	-	57	-	-	-	71	-	-	-	-
P.H.F.			0.838				0.807				
Percentage		25.0%	75.0%			43.6%	56.4%				
ADT/AADT		ADT 1,288		AADT 1,288							

Counts Unlimited, Inc.

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City of Redlands
Brockton Avenue
B/ Texas Street - Church Street
24 Hour Directional Volume Count

RED012
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	40			9	41				
12:15		11	35			6	43				
12:30		3	25			2	41				
12:45		9	38	32	138	3	39	20	164	52	302
01:00		3	29			6	52				
01:15		2	33			3	37				
01:30		2	26			2	34				
01:45		5	38	12	126	1	**61**	12	184	24	310
02:00		2	46			2	**54**				
02:15		3	29			3	**47**				
02:30		4	31			4	**59**				
02:45		4	43	13	149	2	46	11	206	24	355
03:00		3	45			5	45				
03:15		7	57			5	37				
03:30		3	59			10	55				
03:45		4	61	17	222	2	51	22	188	39	410
04:00		1	60			5	39				
04:15		1	46			8	45				
04:30		1	**57**			11	37				
04:45		6	**69**	9	232	7	47	31	168	40	400
05:00		3	**62**			9	41				
05:15		3	**73**			8	29				
05:30		3	56			15	35				
05:45		6	67	15	258	12	57	44	162	59	420
06:00		9	57			15	49				
06:15		7	54			22	36				
06:30		8	40			25	46				
06:45		14	33	38	184	35	39	97	170	135	354
07:00		16	42			38	33				
07:15		21	49			45	35				
07:30		**27**	30			**63**	44				
07:45		**32**	30	96	151	**79**	31	225	143	321	294
08:00		**29**	40			**59**	28				
08:15		**31**	30			**59**	28				
08:30		25	14			41	23				
08:45		24	30	109	114	34	26	193	105	302	219
09:00		19	28			38	20				
09:15		22	18			28	30				
09:30		22	23			46	26				
09:45		32	20	95	89	29	21	141	97	236	186
10:00		24	19			27	17				
10:15		20	13			38	14				
10:30		30	16			38	12				
10:45		20	12	94	60	41	14	144	57	238	117
11:00		27	8			29	17				
11:15		29	14			40	12				
11:30		26	6			29	7				
11:45		35	2	117	30	37	6	135	42	252	72
Total		647	1753	647	1753	1075	1686	1075	1686	1722	3439
Combined Total		2400		2400		2761		2761		5161	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	119	-	-	-	260	-	-	-	-	-
P.H.F.		0.930				0.823					
PM Peak	-	-	04:30	-	-	-	01:45	-	-	-	-
Vol.	-	-	261	-	-	-	221	-	-	-	-
P.H.F.			0.894				0.906				
Percentage		27.0%	73.0%			38.9%	61.1%				
ADT/AADT		ADT 5,161		AADT 5,161							

Counts Unlimited, Inc.

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City of Redlands
Brockton Avenue
B/ Church Street - Judson Street
24 Hour Directional Volume Count

RED013
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	25			1	18				
12:15		6	25			0	34				
12:30		0	19			2	30				
12:45		1	30	9	99	1	26	4	108	13	207
01:00		0	22			2	24				
01:15		1	29			0	22				
01:30		2	31			1	16				
01:45		1	30	4	112	3	32	6	94	10	206
02:00		1	35			0	18				
02:15		0	42			1	**52**				
02:30		1	30			1	**51**				
02:45		1	29	3	136	1	**30**	3	151	6	287
03:00		0	35			2	**34**				
03:15		1	**43**			1	38				
03:30		0	**39**			2	40				
03:45		2	**36**	3	153	2	34	7	146	10	299
04:00		0	**40**			3	31				
04:15		1	28			10	20				
04:30		0	32			7	29				
04:45		3	45	4	145	7	20	27	100	31	245
05:00		0	36			7	31				
05:15		1	37			11	25				
05:30		5	39			16	14				
05:45		3	39	9	151	11	22	45	92	54	243
06:00		5	38			16	26				
06:15		1	23			16	24				
06:30		6	23			22	22				
06:45		13	35	25	119	29	24	83	96	108	215
07:00		6	28			29	18				
07:15		15	25			45	18				
07:30		22	23			**55**	16				
07:45		**33**	19	76	95	**68**	15	197	67	273	162
08:00		**38**	13			**52**	11				
08:15		**39**	14			**60**	6				
08:30		**25**	14			48	16				
08:45		19	12	121	53	36	12	196	45	317	98
09:00		11	18			27	11				
09:15		10	9			33	14				
09:30		7	11			23	6				
09:45		16	12	44	50	17	9	100	40	144	90
10:00		13	10			20	5				
10:15		11	7			21	8				
10:30		16	10			11	2				
10:45		18	8	58	35	41	4	93	19	151	54
11:00		24	7			20	3				
11:15		13	5			25	1				
11:30		21	8			17	3				
11:45		30	5	88	25	15	6	77	13	165	38
Total		444	1173	444	1173	838	971	838	971	1282	2144
Combined Total		1617		1617		1809		1809		3426	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	135	-	-	-	235	-	-	-	-	-
P.H.F.		0.865				0.864					
PM Peak	-	-	03:15	-	-	-	02:15	-	-	-	-
Vol.	-	-	158	-	-	-	167	-	-	-	-
P.H.F.			0.919				0.803				
Percentage		27.5%	72.5%			46.3%	53.7%				
ADT/AADT		ADT 3,426		AADT 3,426							

Counts Unlimited, Inc.

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City of Redlands
Brockton Avenue
B/ Judson Street - Wabash Avenue
24 Hour Directional Volume Count

RED014
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	12			1	22				
12:15		0	30			2	12				
12:30		3	25			0	15				
12:45		0	20	6	87	2	22	5	71	11	158
01:00		2	22			0	13				
01:15		1	18			0	19				
01:30		0	20			1	18				
01:45		1	26	4	86	2	**25**	3	75	7	161
02:00		0	13			1	**37**				
02:15		2	**46**			0	**32**				
02:30		0	**38**			0	**19**				
02:45		0	**23**	2	120	1	14	2	102	4	222
03:00		1	**19**			0	17				
03:15		0	28			2	27				
03:30		0	17			0	19				
03:45		0	23	1	87	0	24	2	87	3	174
04:00		3	18			0	31				
04:15		6	17			0	11				
04:30		2	17			0	27				
04:45		5	19	16	71	3	31	3	100	19	171
05:00		7	23			0	19				
05:15		6	22			1	27				
05:30		14	10			3	29				
05:45		9	20	36	75	2	27	6	102	42	177
06:00		12	20			5	19				
06:15		8	19			1	15				
06:30		15	21			4	14				
06:45		17	20	52	80	8	18	18	66	70	146
07:00		21	18			4	16				
07:15		37	12			15	20				
07:30		**39**	13			**24**	12				
07:45		**55**	14	152	57	**29**	13	72	61	224	118
08:00		**46**	6			**33**	10				
08:15		**61**	9			**23**	9				
08:30		33	12			20	7				
08:45		23	6	163	33	13	9	89	35	252	68
09:00		22	8			10	7				
09:15		15	6			9	7				
09:30		18	5			10	4				
09:45		12	5	67	24	16	4	45	22	112	46
10:00		13	5			14	1				
10:15		12	3			4	2				
10:30		17	2			8	8				
10:45		23	3	65	13	19	4	45	15	110	28
11:00		17	2			18	1				
11:15		15	0			7	1				
11:30		8	2			11	3				
11:45		12	1	52	5	16	7	52	12	104	17
Total		616	738	616	738	342	748	342	748	958	1486
Combined Total		1354		1354		1090		1090		2444	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	201	-	-	-	109	-	-	-	-	-
P.H.F.		0.824				0.826					
PM Peak	-	-	02:15	-	-	-	01:45	-	-	-	-
Vol.	-	-	126	-	-	-	113	-	-	-	-
P.H.F.			0.685				0.764				
Percentage		45.5%	54.5%			31.4%	68.6%				
ADT/AADT		ADT 2,444		AADT 2,444							

Counts Unlimited, Inc.

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City of Redlands
Brookside Avenue
B/ Lakeside Avenue - Center Street
24 Hour Directional Volume Count

RED015
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		10	87			5	228				
12:15		9	107			12	188				
12:30		7	99			3	233				
12:45		4	123	30	416	1	247	21	896	51	1312
01:00		7	101			8	248				
01:15		2	100			1	204				
01:30		2	95			3	230				
01:45		6	104	17	400	8	217	20	899	37	1299
02:00		4	106			8	233				
02:15		1	94			2	250				
02:30		5	108			4	286				
02:45		3	156	13	464	5	228	19	997	32	1461
03:00		2	181			5	**243**				
03:15		3	149			2	**246**				
03:30		1	120			1	**390**				
03:45		1	139	7	589	7	**242**	15	1121	22	1710
04:00		3	146			2	243				
04:15		6	118			3	206				
04:30		4	**170**			7	208				
04:45		4	**135**	17	569	6	198	18	855	35	1424
05:00		4	**131**			9	185				
05:15		6	**172**			18	162				
05:30		12	131			24	229				
05:45		11	116	33	550	20	212	71	788	104	1338
06:00		12	145			22	161				
06:15		19	111			41	181				
06:30		21	116			46	182				
06:45		32	81	84	453	72	158	181	682	265	1135
07:00		59	83			67	127				
07:15		80	74			79	124				
07:30		**95**	85			121	144				
07:45		**135**	65	369	307	172	131	439	526	808	833
08:00		**201**	44			177	123				
08:15		**131**	50			258	90				
08:30		90	47			204	86				
08:45		84	44	506	185	187	83	826	382	1332	567
09:00		80	45			140	60				
09:15		75	35			121	81				
09:30		85	32			113	40				
09:45		90	23	330	135	168	46	542	227	872	362
10:00		79	19			149	38				
10:15		94	17			174	27				
10:30		76	21			170	36				
10:45		93	17	342	74	180	17	673	118	1015	192
11:00		90	24			**199**	17				
11:15		107	12			**230**	14				
11:30		84	17			**207**	10				
11:45		116	11	397	64	**219**	18	855	59	1252	123
Total		2145	4206	2145	4206	3680	7550	3680	7550	5825	11756
Combined Total		6351		6351		11230		11230		17581	
AM Peak	-	07:30	-	-	-	11:00	-	-	-	-	-
Vol.	-	562	-	-	-	855	-	-	-	-	-
P.H.F.		0.699				0.828					
PM Peak	-	-	04:30	-	-	-	03:00	-	-	-	-
Vol.	-	-	608	-	-	-	1121	-	-	-	-
P.H.F.			0.840				0.719				
Percentage		33.8%	66.2%			32.8%	67.2%				
ADT/AADT		ADT 17,581		AADT 17,581							

Counts Unlimited, Inc.

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City of Redlands
Brookside Avenue
B/ Center Street - Eureka Street
24 Hour Directional Volume Count

RED016
Site Code: 000000000000

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		7	93			11	83				
12:15		7	92			14	90				
12:30		6	83			9	98				
12:45		6	99	26	367	3	96	37	367	63	734
01:00		5	103			7	92				
01:15		0	95			3	85				
01:30		2	92			4	94				
01:45		4	85	11	375	8	96	22	367	33	742
02:00		3	98			9	99				
02:15		2	99			2	107				
02:30		2	113			6	112				
02:45		3	134	10	444	3	90	20	408	30	852
03:00		1	**145**			2	**112**				
03:15		1	**147**			2	**97**				
03:30		2	**111**			5	**157**				
03:45		1	**142**	5	545	10	**112**	19	478	24	1023
04:00		2	133			5	97				
04:15		6	114			1	89				
04:30		2	147			5	91				
04:45		7	118	17	512	4	102	15	379	32	891
05:00		4	123			15	98				
05:15		8	156			18	78				
05:30		14	124			17	116				
05:45		11	117	37	520	13	102	63	394	100	914
06:00		14	137			27	78				
06:15		23	117			27	85				
06:30		25	106			39	92				
06:45		26	74	88	434	49	88	142	343	230	777
07:00		49	85			61	65				
07:15		76	81			79	85				
07:30		89	74			**111**	86				
07:45		**124**	59	338	299	**130**	71	381	307	719	606
08:00		**184**	47			**128**	64				
08:15		**139**	47			**147**	61				
08:30		**93**	52			108	69				
08:45		93	43	509	189	101	64	484	258	993	447
09:00		73	42			94	35				
09:15		69	33			58	49				
09:30		81	31			70	32				
09:45		95	21	318	127	88	39	310	155	628	282
10:00		101	16			89	34				
10:15		102	16			82	14				
10:30		80	20			72	29				
10:45		91	15	374	67	85	16	328	93	702	160
11:00		103	22			97	15				
11:15		99	11			101	11				
11:30		90	14			78	7				
11:45		111	8	403	55	84	11	360	44	763	99
Total		2136	3934	2136	3934	2181	3593	2181	3593	4317	7527
Combined Total		6070		6070		5774		5774		11844	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	540	-	-	-	516	-	-	-	-	-
P.H.F.		0.734				0.878					
PM Peak	-	-	03:00	-	-	-	03:00	-	-	-	-
Vol.	-	-	545	-	-	-	478	-	-	-	-
P.H.F.			0.927				0.761				
Percentage		35.2%	64.8%			37.8%	62.2%				
ADT/AADT		ADT 11,844		AADT 11,844							

Counts Unlimited, Inc.

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City of Redlands
Cajon Street
B/ Vine Street - Fern Avenue
24 Hour Directional Volume Count

RED017
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	103			6	60				
12:15		4	89			5	75				
12:30		2	91			1	78				
12:45		3	78	12	361	7	69	19	282	31	643
01:00		2	85			3	81				
01:15		0	99			3	70				
01:30		3	72			1	100				
01:45		5	**80**	10	336	3	108	10	359	20	695
02:00		1	**116**			0	73				
02:15		1	**133**			3	72				
02:30		2	**75**			0	67				
02:45		1	79	5	403	3	97	6	309	11	712
03:00		4	70			4	89				
03:15		4	91			0	**107**				
03:30		7	116			1	**84**				
03:45		4	107	19	384	2	**95**	7	375	26	759
04:00		4	89			0	**111**				
04:15		3	76			4	81				
04:30		8	80			2	97				
04:45		17	89	32	334	2	86	8	375	40	709
05:00		10	83			3	106				
05:15		18	93			6	96				
05:30		17	73			5	101				
05:45		24	63	69	312	11	74	25	377	94	689
06:00		14	60			16	85				
06:15		32	74			20	78				
06:30		45	45			18	74				
06:45		62	54	153	233	50	66	104	303	257	536
07:00		54	48			35	67				
07:15		85	52			56	50				
07:30		**92**	50			**81**	46				
07:45		**118**	33	349	183	**75**	47	247	210	596	393
08:00		**102**	36			**61**	44				
08:15		**102**	30			**93**	40				
08:30		78	23			65	40				
08:45		85	22	367	111	49	36	268	160	635	271
09:00		99	21			63	32				
09:15		104	9			52	28				
09:30		89	12			68	22				
09:45		119	13	411	55	67	26	250	108	661	163
10:00		79	13			59	24				
10:15		73	8			52	22				
10:30		87	12			66	23				
10:45		79	10	318	43	82	10	259	79	577	122
11:00		89	7			69	20				
11:15		75	7			66	7				
11:30		87	7			70	12				
11:45		105	7	356	28	69	8	274	47	630	75
Total		2101	2783	2101	2783	1477	2984	1477	2984	3578	5767
Combined Total		4884		4884		4461		4461		9345	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	414	-	-	-	310	-	-	-	-	-
P.H.F.		0.877				0.833					
PM Peak	-	-	01:45	-	-	-	03:15	-	-	-	-
Vol.	-	-	404	-	-	-	397	-	-	-	-
P.H.F.			0.759				0.894				
Percentage		43.0%	57.0%			33.1%	66.9%				
ADT/AADT		ADT 9,345		AADT 9,345							

Counts Unlimited, Inc.

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City of Redlands
Cajon Street
B/ Fern Avenue - Garden Street
24 Hour Directional Volume Count

RED018
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	51			1	50				
12:15		1	39			4	50				
12:30		1	28			2	43				
12:45		2	47	5	165	1	34	8	177	13	342
01:00		2	42			1	42				
01:15		0	43			1	47				
01:30		1	37			0	49				
01:45		0	49	3	171	1	78	3	216	6	387
02:00		2	**91**			1	46				
02:15		1	**60**			0	42				
02:30		1	**34**			1	43				
02:45		1	**59**	5	244	2	46	4	177	9	421
03:00		2	36			2	58				
03:15		1	61			0	59				
03:30		2	52			0	73				
03:45		1	53	6	202	0	66	2	256	8	458
04:00		0	51			0	63				
04:15		4	34			0	73				
04:30		1	46			0	53				
04:45		9	36	14	167	1	51	1	240	15	407
05:00		4	34			1	**97**				
05:15		7	43			4	**76**				
05:30		5	54			2	**82**				
05:45		15	43	31	174	8	**71**	15	326	46	500
06:00		4	45			11	85				
06:15		10	38			7	58				
06:30		12	39			7	54				
06:45		43	33	69	155	24	34	49	231	118	386
07:00		28	35			21	52				
07:15		56	28			39	27				
07:30		**73**	31			40	39				
07:45		**99**	15	256	109	31	32	131	150	387	259
08:00		**45**	18			34	35				
08:15		**71**	12			**54**	31				
08:30		34	11			**45**	26				
08:45		49	9	199	50	**40**	25	173	117	372	167
09:00		61	9			**46**	17				
09:15		45	5			42	23				
09:30		44	3			33	18				
09:45		55	5	205	22	39	10	160	68	365	90
10:00		49	7			40	13				
10:15		43	2			28	13				
10:30		44	4			29	12				
10:45		49	3	185	16	41	9	138	47	323	63
11:00		48	8			48	9				
11:15		53	4			45	2				
11:30		62	5			42	8				
11:45		50	4	213	21	46	5	181	24	394	45
Total		1191	1496	1191	1496	865	2029	865	2029	2056	3525
Combined Total		2687		2687		2894		2894		5581	
AM Peak	-	07:30	-	-	-	08:15	-	-	-	-	-
Vol.	-	288	-	-	-	185	-	-	-	-	-
P.H.F.		0.727				0.856					
PM Peak	-	-	02:00	-	-	-	05:00	-	-	-	-
Vol.	-	-	244	-	-	-	326	-	-	-	-
P.H.F.			0.670				0.840				
Percentage		44.3%	55.7%			29.9%	70.1%				
ADT/AADT		ADT 5,581		AADT 5,581							

Counts Unlimited, Inc.

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City of Redlands
California Street
B/ Palmetto Avenue - Almond Avenue
24 Hour Directional Volume Count

RED019
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	54			8	38				
12:15		9	54			0	32				
12:30		19	44			22	60				
12:45		4	40	33	192	17	41	47	171	80	363
01:00		2	44			10	56				
01:15		8	**52**			6	38				
01:30		4	**75**			17	**114**				
01:45		21	**68**	35	239	3	**82**	36	290	71	529
02:00		17	**61**			10	**67**				
02:15		8	38			11	**58**				
02:30		25	39			12	73				
02:45		30	40	80	178	7	57	40	255	120	433
03:00		12	59			10	38				
03:15		11	41			9	36				
03:30		46	50			14	55				
03:45		65	40	134	190	25	54	58	183	192	373
04:00		24	42			15	51				
04:15		24	50			5	43				
04:30		48	57			20	82				
04:45		**109**	53	205	202	19	47	59	223	264	425
05:00		**50**	38			23	56				
05:15		**51**	40			17	49				
05:30		**63**	35			9	43				
05:45		96	20	260	133	40	40	89	188	349	321
06:00		52	28			24	28				
06:15		43	27			24	40				
06:30		39	33			24	51				
06:45		38	45	172	133	20	27	92	146	264	279
07:00		37	19			35	29				
07:15		46	22			31	36				
07:30		48	31			26	39				
07:45		37	23	168	95	48	25	140	129	308	224
08:00		50	24			34	19				
08:15		41	27			38	28				
08:30		34	18			39	20				
08:45		48	16	173	85	36	28	147	95	320	180
09:00		39	9			32	33				
09:15		40	11			22	19				
09:30		31	15			46	19				
09:45		47	17	157	52	45	17	145	88	302	140
10:00		46	19			37	25				
10:15		53	12			44	31				
10:30		43	17			**40**	31				
10:45		55	17	197	65	**49**	12	170	99	367	164
11:00		67	8			**36**	30				
11:15		42	18			**48**	13				
11:30		58	16			40	16				
11:45		44	6	211	48	40	6	164	65	375	113
Total		1825	1612	1825	1612	1187	1932	1187	1932	3012	3544
Combined Total		3437		3437		3119		3119		6556	
AM Peak	-	04:45	-	-	-	10:30	-	-	-	-	-
Vol.	-	273	-	-	-	173	-	-	-	-	-
P.H.F.		0.626				0.883					
PM Peak	-	-	01:15	-	-	-	01:30	-	-	-	-
Vol.	-	-	256	-	-	-	321	-	-	-	-
P.H.F.			0.853				0.704				
Percentage		53.1%	46.9%			38.1%	61.9%				
ADT/AADT		ADT 6,556		AADT 6,556							

Counts Unlimited, Inc.

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City of Redlands
California Street
B/ Almond Avenue - Redlands Boulevard
24 Hour Directional Volume Count

RED020
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	176			36	203				
12:15		34	180			17	157				
12:30		32	187			58	192				
12:45		14	188	89	731	19	124	130	676	219	1407
01:00		9	171			30	190				
01:15		11	185			30	138				
01:30		22	220			48	**290**				
01:45		35	186	77	762	24	**224**	132	842	209	1604
02:00		33	187			25	**192**				
02:15		25	172			25	**181**				
02:30		31	171			34	219				
02:45		47	198	136	728	18	202	102	794	238	1522
03:00		29	215			29	204				
03:15		34	228			23	165				
03:30		80	**276**			23	221				
03:45		117	**319**	260	1038	36	154	111	744	371	1782
04:00		52	**299**			39	192				
04:15		87	**267**			13	187				
04:30		147	267			42	271				
04:45		212	172	498	1005	54	172	148	822	646	1827
05:00		130	134			100	205				
05:15		106	159			49	192				
05:30		109	137			34	186				
05:45		173	121	518	551	53	137	236	720	754	1271
06:00		109	102			60	165				
06:15		88	116			52	136				
06:30		101	116			39	90				
06:45		142	102	440	436	63	86	214	477	654	913
07:00		123	72			77	124				
07:15		**190**	74			73	82				
07:30		**158**	78			55	93				
07:45		**205**	63	676	287	90	48	295	347	971	634
08:00		**206**	55			94	56				
08:15		164	66			108	53				
08:30		154	54			121	45				
08:45		211	45	735	220	137	47	460	201	1195	421
09:00		120	62			120	58				
09:15		139	24			124	50				
09:30		138	68			197	38				
09:45		143	47	540	201	156	41	597	187	1137	388
10:00		178	36			131	66				
10:15		163	30			135	56				
10:30		174	34			130	56				
10:45		161	39	676	139	150	35	546	213	1222	352
11:00		188	19			**152**	48				
11:15		116	44			**161**	26				
11:30		144	29			**152**	39				
11:45		133	18	581	110	**162**	26	627	139	1208	249
Total		5226	6208	5226	6208	3598	6162	3598	6162	8824	12370
Combined Total		11434		11434		9760		9760		21194	
AM Peak	-	07:15	-	-	-	11:00	-	-	-	-	-
Vol.	-	759	-	-	-	627	-	-	-	-	-
P.H.F.		0.921				0.968					
PM Peak	-	-	03:30	-	-	-	01:30	-	-	-	-
Vol.	-	-	1161	-	-	-	887	-	-	-	-
P.H.F.			0.910				0.765				
Percentage		45.7%	54.3%			36.9%	63.1%				
ADT/AADT		ADT 21,194		AADT 21,194							

Counts Unlimited, Inc.

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City of Redlands
Center Street
B/ State Street - Brookside Avenue
24 Hour Directional Volume Count

RED021
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	83			8	62				
12:15		1	58			1	68				
12:30		0	88			2	71				
12:45		2	74	12	303	5	90	16	291	28	594
01:00		2	74			7	79				
01:15		2	73			7	52				
01:30		2	79			0	72				
01:45		2	86	8	312	2	65	16	268	24	580
02:00		3	86			3	77				
02:15		1	66			2	112				
02:30		4	68			5	70				
02:45		5	**73**	13	293	3	70	13	329	26	622
03:00		3	**94**			3	74				
03:15		1	**84**			3	71				
03:30		4	**88**			4	72				
03:45		11	70	19	336	0	64	10	281	29	617
04:00		3	77			3	64				
04:15		3	70			3	61				
04:30		3	82			8	**93**				
04:45		2	77	11	306	12	**88**	26	306	37	612
05:00		7	83			7	**79**				
05:15		13	78			4	**72**				
05:30		13	79			10	76				
05:45		22	74	55	314	14	61	35	288	90	602
06:00		11	68			16	64				
06:15		25	71			24	61				
06:30		27	52			27	58				
06:45		31	67	94	258	32	57	99	240	193	498
07:00		36	44			36	42				
07:15		39	40			42	37				
07:30		**66**	58			**90**	44				
07:45		**96**	44	237	186	**118**	25	286	148	523	334
08:00		**100**	44			**94**	41				
08:15		**73**	44			**87**	32				
08:30		65	28			84	24				
08:45		73	22	311	138	57	20	322	117	633	255
09:00		44	31			42	15				
09:15		45	26			44	24				
09:30		44	16			33	17				
09:45		48	17	181	90	54	15	173	71	354	161
10:00		51	12			40	10				
10:15		49	22			51	7				
10:30		42	12			28	9				
10:45		42	6	184	52	50	4	169	30	353	82
11:00		55	9			57	7				
11:15		68	9			81	6				
11:30		68	4			45	8				
11:45		67	12	258	34	57	12	240	33	498	67
Total		1383	2622	1383	2622	1405	2402	1405	2402	2788	5024
Combined Total		4005		4005		3807		3807		7812	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	335	-	-	-	389	-	-	-	-	-
P.H.F.		0.838				0.824					
PM Peak	-	-	02:45	-	-	-	04:30	-	-	-	-
Vol.	-	-	339	-	-	-	332	-	-	-	-
P.H.F.			0.902				0.741				
Percentage		34.5%	65.5%			36.9%	63.1%				
ADT/AADT		ADT 7,812		AADT 7,812							

Counts Unlimited, Inc.

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City of Redlands
Center Street
B/ Brookside Avenue - Cypress Avenue
24 Hour Directional Volume Count

RED022
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		6	41			5	61				
12:15		2	34			2	61				
12:30		1	**53**			2	89				
12:45		2	**109**	11	237	1	61	10	272	21	509
01:00		2	**54**			0	62				
01:15		2	**39**			1	70				
01:30		1	46			2	47				
01:45		1	46	6	185	2	59	5	238	11	423
02:00		0	67			3	60				
02:15		1	34			1	46				
02:30		1	52			2	49				
02:45		2	50	4	203	3	72	9	227	13	430
03:00		2	36			1	73				
03:15		4	56			1	58				
03:30		3	58			2	63				
03:45		4	53	13	203	2	65	6	259	19	462
04:00		2	52			1	53				
04:15		3	48			3	61				
04:30		3	62			2	72				
04:45		8	48	16	210	2	**69**	8	255	24	465
05:00		8	53			4	**91**				
05:15		10	52			8	**61**				
05:30		5	53			9	**77**				
05:45		6	50	29	208	10	63	31	292	60	500
06:00		17	47			10	72				
06:15		18	43			11	63				
06:30		22	46			17	59				
06:45		38	44	95	180	19	52	57	246	152	426
07:00		36	22			30	38				
07:15		46	33			53	34				
07:30		67	24			54	49				
07:45		**68**	18	217	97	**53**	36	190	157	407	254
08:00		**62**	40			**45**	38				
08:15		**58**	30			**63**	29				
08:30		**70**	24			**55**	32				
08:45		59	14	249	108	42	25	205	124	454	232
09:00		48	16			37	29				
09:15		54	18			31	16				
09:30		37	15			29	17				
09:45		60	13	199	62	28	18	125	80	324	142
10:00		37	7			33	11				
10:15		47	9			29	15				
10:30		41	4			24	8				
10:45		48	5	173	25	43	6	129	40	302	65
11:00		38	3			37	7				
11:15		45	3			52	7				
11:30		46	5			56	4				
11:45		47	3	176	14	54	4	199	22	375	36
Total		1188	1732	1188	1732	974	2212	974	2212	2162	3944
Combined Total		2920		2920		3186		3186		6106	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	258	-	-	-	216	-	-	-	-	-
P.H.F.		0.921				0.857					
PM Peak	-	-	00:30	-	-	-	04:45	-	-	-	-
Vol.	-	-	255	-	-	-	298	-	-	-	-
P.H.F.			0.585				0.819				
Percentage		40.7%	59.3%			30.6%	69.4%				
ADT/AADT		ADT 6,106		AADT 6,106							

Counts Unlimited, Inc.

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City of Redlands
Center Street
B/ Cypress Avenue - Crescent Avenue
24 Hour Directional Volume Count

RED023
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	51			7	43				
12:15		3	50			4	51				
12:30		2	66			1	32				
12:45		6	58	14	225	7	60	19	186	33	411
01:00		6	45			3	51				
01:15		2	47			2	60				
01:30		3	52			1	49				
01:45		1	60	12	204	0	61	6	221	18	425
02:00		2	76			4	60				
02:15		0	56			1	71				
02:30		0	57			2	48				
02:45		1	61	3	250	0	53	7	232	10	482
03:00		3	65			0	71				
03:15		2	56			4	73				
03:30		4	71			2	72				
03:45		5	71	14	263	1	77	7	293	21	556
04:00		3	65			4	74				
04:15		1	64			7	85				
04:30		6	78			2	88				
04:45		10	58	20	265	2	68	15	315	35	580
05:00		11	**85**			8	**95**				
05:15		14	**60**			12	**89**				
05:30		16	**85**			11	**94**				
05:45		12	**69**	53	299	13	**70**	44	348	97	647
06:00		27	56			18	77				
06:15		29	43			32	58				
06:30		29	47			32	57				
06:45		53	38	138	184	48	58	130	250	268	434
07:00		48	29			52	54				
07:15		75	36			41	25				
07:30		**107**	18			59	52				
07:45		**88**	40	318	123	**60**	44	212	175	530	298
08:00		**95**	31			**55**	26				
08:15		**84**	23			**56**	33				
08:30		84	24			**66**	36				
08:45		54	12	317	90	31	22	208	117	525	207
09:00		44	19			45	29				
09:15		49	14			40	17				
09:30		54	17			34	19				
09:45		48	8	195	58	35	22	154	87	349	145
10:00		43	8			40	12				
10:15		48	12			29	15				
10:30		41	7			25	10				
10:45		55	6	187	33	53	7	147	44	334	77
11:00		36	8			44	16				
11:15		71	4			61	9				
11:30		61	8			55	5				
11:45		46	4	214	24	53	4	213	34	427	58
Total		1485	2018	1485	2018	1162	2302	1162	2302	2647	4320
Combined Total		3503		3503		3464		3464		6967	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	374	-	-	-	237	-	-	-	-	-
P.H.F.		0.874				0.898					
PM Peak	-	-	05:00	-	-	-	05:00	-	-	-	-
Vol.	-	-	299	-	-	-	348	-	-	-	-
P.H.F.			0.879				0.916				
Percentage		42.4%	57.6%			33.5%	66.5%				
ADT/AADT		ADT 6,967		AADT 6,967							

Counts Unlimited, Inc.

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City of Redlands
Center Street
B/ Crescent Avenue - Ridge Street
24 Hour Directional Volume Count

RED024
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	7			2	9				
12:15		0	3			0	9				
12:30		0	15			0	5				
12:45		1	6	1	31	1	9	3	32	4	63
01:00		0	3			0	4				
01:15		1	5			0	13				
01:30		1	8			1	9				
01:45		0	6	2	22	0	11	1	37	3	59
02:00		0	6			0	8				
02:15		0	13			0	6				
02:30		0	9			0	11				
02:45		0	**12**	0	40	0	7	0	32	0	72
03:00		0	**10**			0	**9**				
03:15		1	**14**			0	**16**				
03:30		0	**10**			1	**10**				
03:45		1	5	2	39	0	**12**	1	47	3	86
04:00		2	5			0	8				
04:15		0	3			0	11				
04:30		0	7			1	15				
04:45		1	5	3	20	0	12	1	46	4	66
05:00		2	6			0	7				
05:15		2	6			0	7				
05:30		1	5			2	15				
05:45		1	6	6	23	1	8	3	37	9	60
06:00		5	5			0	13				
06:15		2	7			3	6				
06:30		3	10			1	6				
06:45		7	7	17	29	4	8	8	33	25	62
07:00		7	5			4	10				
07:15		11	4			5	5				
07:30		17	4			6	8				
07:45		**11**	3	46	16	**9**	9	24	32	70	48
08:00		**9**	2			**7**	4				
08:15		**19**	3			**11**	8				
08:30		**18**	2			**11**	5				
08:45		7	2	53	9	2	1	31	18	84	27
09:00		5	5			12	0				
09:15		8	4			3	2				
09:30		10	1			10	2				
09:45		9	3	32	13	5	4	30	8	62	21
10:00		5	0			4	2				
10:15		10	3			8	3				
10:30		3	0			5	2				
10:45		7	0	25	3	9	1	26	8	51	11
11:00		9	1			12	0				
11:15		3	0			5	4				
11:30		11	3			12	0				
11:45		6	0	29	4	7	1	36	5	65	9
Total		216	249	216	249	164	335	164	335	380	584
Combined Total		465		465		499		499		964	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	57	-	-	-	38	-	-	-	-	-
P.H.F.		0.750				0.864					
PM Peak	-	-	02:45	-	-	-	03:00	-	-	-	-
Vol.	-	-	46	-	-	-	47	-	-	-	-
P.H.F.			0.821				0.734				
Percentage		46.5%	53.5%			32.9%	67.1%				
ADT/AADT		ADT 964		AADT 964							

Counts Unlimited, Inc.

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City of Redlands
Central Avenue
B/ University Street - Judson Street
24 Hour Directional Volume Count

RED025
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	6			1	15				
12:15		4	6			1	8				
12:30		4	7			1	7				
12:45		0	14	10	33	0	8	3	38	13	71
01:00		1	6			2	7				
01:15		2	13			0	8				
01:30		1	8			1	8				
01:45		2	12	6	39	0	6	3	29	9	68
02:00		3	8			3	3				
02:15		2	15			1	9				
02:30		4	13			3	10				
02:45		0	11	9	47	3	7	10	29	19	76
03:00		0	3			2	8				
03:15		1	10			4	7				
03:30		3	7			2	6				
03:45		2	6	6	26	8	8	16	29	22	55
04:00		4	7			8	12				
04:15		3	10			8	9				
04:30		1	11			6	4				
04:45		0	12	8	40	12	9	34	34	42	74
05:00		2	11			5	10				
05:15		4	**15**			7	9				
05:30		4	**16**			9	4				
05:45		5	**13**	15	55	10	**14**	31	37	46	92
06:00		4	**15**			6	**6**				
06:15		2	13			5	**11**				
06:30		0	12			4	**11**				
06:45		5	13	11	53	5	8	20	36	31	89
07:00		**13**	10			9	8				
07:15		**4**	12			**8**	3				
07:30		**4**	11			**4**	4				
07:45		**14**	10	35	43	**7**	12	28	27	63	70
08:00		10	6			**19**	8				
08:15		5	12			5	11				
08:30		5	8			4	9				
08:45		4	4	24	30	5	4	33	32	57	62
09:00		11	9			7	6				
09:15		6	9			9	7				
09:30		5	5			4	10				
09:45		6	2	28	25	3	1	23	24	51	49
10:00		3	8			4	2				
10:15		9	7			6	1				
10:30		6	6			6	5				
10:45		4	1	22	22	3	2	19	10	41	32
11:00		7	6			11	4				
11:15		5	5			10	0				
11:30		11	3			9	4				
11:45		7	2	30	16	3	2	33	10	63	26
Total		204	429	204	429	253	335	253	335	457	764
Combined Total		633		633		588		588		1221	
AM Peak	-	07:00	-	-	-	07:15	-	-	-	-	-
Vol.	-	35	-	-	-	38	-	-	-	-	-
P.H.F.		0.625				0.500					
PM Peak	-	-	05:15	-	-	-	05:45	-	-	-	-
Vol.	-	-	59	-	-	-	42	-	-	-	-
P.H.F.			0.922				0.750				
Percentage		32.2%	67.8%			43.0%	57.0%				
ADT/AADT		ADT 1,221		AADT 1,221							

Counts Unlimited, Inc.

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City of Redlands
Church Street
B/ Pioneer Avenue - Redlands Boulevard
24 Hour Directional Volume Count

RED026
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	64			3	60				
12:15		4	63			2	51				
12:30		6	61			4	67				
12:45		3	78	18	266	2	71	11	249	29	515
01:00		1	78			2	82				
01:15		2	79			3	**87**				
01:30		8	62			1	**74**				
01:45		5	87	16	306	6	**85**	12	328	28	634
02:00		6	104			6	**86**				
02:15		1	75			2	58				
02:30		4	102			3	66				
02:45		5	76	16	357	4	69	15	279	31	636
03:00		3	84			2	59				
03:15		4	84			3	81				
03:30		6	89			4	79				
03:45		2	68	15	325	5	74	14	293	29	618
04:00		4	83			3	53				
04:15		4	83			7	71				
04:30		4	**95**			11	65				
04:45		5	**101**	17	362	14	65	35	254	52	616
05:00		5	**92**			8	85				
05:15		9	**93**			14	67				
05:30		4	95			18	85				
05:45		11	95	29	375	24	70	64	307	93	682
06:00		13	75			24	79				
06:15		6	79			19	90				
06:30		16	82			22	58				
06:45		16	73	51	309	44	57	109	284	160	593
07:00		26	66			54	58				
07:15		43	64			**108**	61				
07:30		74	66			**145**	53				
07:45		**76**	48	219	244	**115**	52	422	224	641	468
08:00		**71**	58			**102**	46				
08:15		**66**	50			88	58				
08:30		**77**	64			67	42				
08:45		48	46	262	218	65	29	322	175	584	393
09:00		45	41			78	27				
09:15		44	26			52	19				
09:30		45	24			62	23				
09:45		49	19	183	110	75	16	267	85	450	195
10:00		57	16			63	28				
10:15		55	21			64	10				
10:30		53	19			52	14				
10:45		59	18	224	74	63	11	242	63	466	137
11:00		67	14			66	6				
11:15		58	12			53	7				
11:30		64	15			41	5				
11:45		47	5	236	46	61	8	221	26	457	72
Total		1286	2992	1286	2992	1734	2567	1734	2567	3020	5559
Combined Total		4278		4278		4301		4301		8579	
AM Peak	-	07:45	-	-	-	07:15	-	-	-	-	-
Vol.	-	290	-	-	-	470	-	-	-	-	-
P.H.F.		0.942				0.810					
PM Peak	-	-	04:30	-	-	-	01:15	-	-	-	-
Vol.	-	-	381	-	-	-	332	-	-	-	-
P.H.F.			0.943				0.954				
Percentage		30.1%	69.9%			40.3%	59.7%				
ADT/AADT		ADT 8,579		AADT 8,579							

Counts Unlimited, Inc.

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City of Redlands
Citrus Avenue
B/ Eureka Street - Orange Avenue
24 Hour Directional Volume Count

RED001
Site Code: 105-22029

Start Time	12-Jan-22 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	85			2	80				
12:15		6	83			3	81				
12:30		2	76			4	81				
12:45		4	99	17	343	7	82	16	324	33	667
01:00		7	96			2	87				
01:15		2	105			2	81				
01:30		1	90			4	62				
01:45		5	83	15	374	6	77	14	307	29	681
02:00		6	94			7	91				
02:15		0	102			3	90				
02:30		2	104			1	79				
02:45		0	**121**	8	421	2	90	13	350	21	771
03:00		1	**146**			4	**95**				
03:15		2	**136**			0	**98**				
03:30		4	**134**			5	**141**				
03:45		3	115	10	531	2	**118**	11	452	21	983
04:00		2	120			3	77				
04:15		4	115			2	68				
04:30		1	105			5	64				
04:45		3	111	10	451	8	93	18	302	28	753
05:00		8	131			6	112				
05:15		11	113			9	81				
05:30		9	103			11	83				
05:45		16	107	44	454	13	72	39	348	83	802
06:00		17	89			14	72				
06:15		16	70			21	59				
06:30		25	66			23	55				
06:45		33	63	91	288	31	50	89	236	180	524
07:00		38	48			37	55				
07:15		60	41			49	42				
07:30		**76**	40			72	27				
07:45		**108**	48	282	177	**97**	53	255	177	537	354
08:00		**138**	42			**97**	39				
08:15		**123**	38			**111**	42				
08:30		68	22			**77**	28				
08:45		70	30	399	132	68	38	353	147	752	279
09:00		74	22			41	34				
09:15		76	16			68	28				
09:30		67	21			47	14				
09:45		89	13	306	72	62	24	218	100	524	172
10:00		66	16			58	15				
10:15		74	15			56	16				
10:30		68	14			72	16				
10:45		82	12	290	57	52	8	238	55	528	112
11:00		68	16			67	9				
11:15		93	15			60	14				
11:30		103	12			92	13				
11:45		71	4	335	47	79	7	298	43	633	90
Total		1807	3347	1807	3347	1562	2841	1562	2841	3369	6188
Combined Total		5154		5154		4403		4403		9557	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	445	-	-	-	382	-	-	-	-	-
P.H.F.		0.806				0.860					
PM Peak	-	-	02:45	-	-	-	03:00	-	-	-	-
Vol.	-	-	537	-	-	-	452	-	-	-	-
P.H.F.			0.920				0.801				
Percentage		35.1%	64.9%			35.5%	64.5%				
ADT/AADT		ADT 9,557		AADT 9,557							

Counts Unlimited, Inc.

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City of Redlands
Citrus Avenue
B/ Redlands Boulevard - University Street
24 Hour Directional Volume Count

RED003
Site Code: 105-22029

Start Time	12-Jan-22 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	68			7	66				
12:15		4	61			6	75				
12:30		5	80			7	74				
12:45		7	88	24	297	4	90	24	305	48	602
01:00		7	81			1	75				
01:15		4	82			4	73				
01:30		2	77			2	74				
01:45		4	65	17	305	6	57	13	279	30	584
02:00		7	62			4	69				
02:15		8	87			2	80				
02:30		6	87			3	76				
02:45		2	94	23	330	2	85	11	310	34	640
03:00		2	98			3	**79**				
03:15		3	**133**			2	**104**				
03:30		1	**146**			2	**109**				
03:45		2	**106**	8	483	3	**94**	10	386	18	869
04:00		2	**113**			6	65				
04:15		3	100			10	76				
04:30		6	93			2	77				
04:45		6	99	17	405	8	74	26	292	43	697
05:00		3	131			15	87				
05:15		6	139			15	84				
05:30		8	97			13	68				
05:45		13	106	30	473	16	63	59	302	89	775
06:00		13	103			24	64				
06:15		10	83			27	62				
06:30		18	71			33	53				
06:45		22	69	63	326	33	47	117	226	180	552
07:00		20	45			59	44				
07:15		58	55			81	39				
07:30		57	39			82	30				
07:45		**66**	46	201	185	**107**	41	329	154	530	339
08:00		**136**	73			**136**	49				
08:15		**163**	54			**148**	30				
08:30		**71**	31			**92**	31				
08:45		56	37	426	195	81	28	457	138	883	333
09:00		45	46			47	21				
09:15		48	36			54	24				
09:30		50	29			72	18				
09:45		53	28	196	139	67	13	240	76	436	215
10:00		59	20			72	12				
10:15		62	20			57	11				
10:30		49	23			49	6				
10:45		46	14	216	77	62	13	240	42	456	119
11:00		58	16			62	8				
11:15		63	13			66	12				
11:30		67	15			57	13				
11:45		64	9	252	53	76	7	261	40	513	93
Total		1473	3268	1473	3268	1787	2550	1787	2550	3260	5818
Combined Total		4741		4741		4337		4337		9078	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	436	-	-	-	483	-	-	-	-	-
P.H.F.		0.669				0.816					
PM Peak	-	-	03:15	-	-	-	03:00	-	-	-	-
Vol.	-	-	498	-	-	-	386	-	-	-	-
P.H.F.			0.853				0.885				
Percentage		31.1%	68.9%			41.2%	58.8%				
ADT/AADT		ADT 9,078		AADT 9,078							

Counts Unlimited, Inc.

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City of Redlands
Citrus Avenue
B/ University Street - Wabash Avenue
24 Hour Directional Volume Count

RED028
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		11	75			7	72				
12:15		11	87			2	75				
12:30		10	95			8	49				
12:45		6	84	38	341	2	75	19	271	57	612
01:00		9	98			2	60				
01:15		8	85			3	62				
01:30		6	106			3	69				
01:45		3	108	26	397	5	57	13	248	39	645
02:00		3	129			1	**65**				
02:15		5	105			6	**172**				
02:30		2	112			4	**116**				
02:45		4	**111**	14	457	4	**63**	15	416	29	873
03:00		0	**123**			1	64				
03:15		2	**137**			3	132				
03:30		3	**142**			6	108				
03:45		4	105	9	507	3	75	13	379	22	886
04:00		3	120			6	59				
04:15		0	114			20	69				
04:30		3	111			14	72				
04:45		10	117	16	462	16	70	56	270	72	732
05:00		10	135			9	75				
05:15		9	124			27	70				
05:30		8	130			29	68				
05:45		9	121	36	510	31	78	96	291	132	801
06:00		12	123			34	68				
06:15		26	116			37	69				
06:30		15	101			60	52				
06:45		43	91	96	431	60	49	191	238	287	669
07:00		58	97			73	46				
07:15		61	87			94	36				
07:30		85	80			**131**	43				
07:45		**113**	74	317	338	**148**	47	446	172	763	510
08:00		**130**	64			**146**	30				
08:15		**89**	61			**146**	39				
08:30		**89**	50			118	23				
08:45		77	47	385	222	73	18	483	110	868	332
09:00		73	49			72	27				
09:15		63	31			73	17				
09:30		72	32			74	19				
09:45		69	40	277	152	63	9	282	72	559	224
10:00		77	36			69	16				
10:15		74	35			85	10				
10:30		68	30			70	10				
10:45		68	13	287	114	59	8	283	44	570	158
11:00		69	21			58	13				
11:15		82	15			58	7				
11:30		70	20			76	4				
11:45		61	15	282	71	76	6	268	30	550	101
Total		1783	4002	1783	4002	2165	2541	2165	2541	3948	6543
Combined Total		5785		5785		4706		4706		10491	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	421	-	-	-	571	-	-	-	-	-
P.H.F.		0.810				0.965					
PM Peak	-	-	02:45	-	-	-	02:00	-	-	-	-
Vol.	-	-	513	-	-	-	416	-	-	-	-
P.H.F.			0.903				0.605				
Percentage		30.8%	69.2%			46.0%	54.0%				
ADT/AADT		ADT 10,491		AADT 10,491							

Counts Unlimited, Inc.

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City of Redlands
Colton Avenue
B/ Redlands Boulevard - Church Street
24 Hour Directional Volume Count

RED029
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		12	84			5	93				
12:15		5	84			9	73				
12:30		11	89			3	56				
12:45		5	91	33	348	5	87	22	309	55	657
01:00		4	105			4	82				
01:15		2	92			3	85				
01:30		7	106			9	65				
01:45		4	91	17	394	3	95	19	327	36	721
02:00		5	107			2	96				
02:15		5	114			2	79				
02:30		6	109			4	84				
02:45		3	123	19	453	4	79	12	338	31	791
03:00		2	140			4	**88**				
03:15		0	125			6	**105**				
03:30		5	88			1	**97**				
03:45		3	120	10	473	6	**80**	17	370	27	843
04:00		1	147			7	57				
04:15		2	121			9	83				
04:30		5	117			12	68				
04:45		3	**144**	11	529	17	78	45	286	56	815
05:00		6	**148**			6	76				
05:15		2	**143**			7	85				
05:30		3	**129**			15	69				
05:45		10	144	21	564	16	96	44	326	65	890
06:00		15	129			14	86				
06:15		6	137			23	74				
06:30		16	106			22	67				
06:45		22	88	59	460	62	86	121	313	180	773
07:00		44	85			60	74				
07:15		61	87			69	58				
07:30		55	76			**130**	50				
07:45		43	82	203	330	**107**	49	366	231	569	561
08:00		81	71			**80**	54				
08:15		59	80			**108**	47				
08:30		60	59			79	44				
08:45		35	51	235	261	57	35	324	180	559	441
09:00		56	43			63	35				
09:15		45	45			64	22				
09:30		66	44			75	26				
09:45		55	38	222	170	68	19	270	102	492	272
10:00		48	41			69	25				
10:15		58	27			62	17				
10:30		62	27			73	16				
10:45		58	28	226	123	60	14	264	72	490	195
11:00		**74**	15			65	8				
11:15		**68**	16			78	12				
11:30		**63**	8			68	10				
11:45		**71**	9	276	48	72	3	283	33	559	81
Total		1332	4153	1332	4153	1787	2887	1787	2887	3119	7040
Combined Total		5485		5485		4674		4674		10159	
AM Peak	-	11:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	276	-	-	-	425	-	-	-	-	-
P.H.F.		0.932				0.817					
PM Peak	-	-	04:45	-	-	-	03:00	-	-	-	-
Vol.	-	-	564	-	-	-	370	-	-	-	-
P.H.F.			0.953				0.881				
Percentage		24.3%	75.7%			38.2%	61.8%				
ADT/AADT		ADT 10,159		AADT 10,159							

Counts Unlimited, Inc.

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City of Redlands
Colton Avenue
B/ Church Street - Grove Street
24 Hour Directional Volume Count

RED030
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	61			6	75				
12:15		7	67			4	54				
12:30		7	64			6	67				
12:45		4	58	23	250	5	48	21	244	44	494
01:00		4	75			3	47				
01:15		4	69			3	64				
01:30		3	72			4	54				
01:45		1	68	12	284	1	77	11	242	23	526
02:00		5	94			2	52				
02:15		2	81			0	41				
02:30		2	89			3	50				
02:45		2	104	11	368	2	41	7	184	18	552
03:00		2	99			1	**72**				
03:15		1	**119**			1	**72**				
03:30		4	**117**			3	**88**				
03:45		2	**119**	9	454	0	**83**	5	315	14	769
04:00		1	**113**			3	46				
04:15		0	81			5	55				
04:30		1	104			5	51				
04:45		2	94	4	392	8	59	21	211	25	603
05:00		2	113			5	52				
05:15		3	103			4	62				
05:30		4	113			10	51				
05:45		10	113	19	442	10	67	29	232	48	674
06:00		4	92			3	72				
06:15		4	109			13	58				
06:30		12	67			22	43				
06:45		10	68	30	336	33	53	71	226	101	562
07:00		20	64			36	56				
07:15		44	72			63	36				
07:30		**70**	55			**65**	36				
07:45		**44**	47	178	238	**59**	36	223	164	401	402
08:00		**64**	50			**70**	39				
08:15		**70**	57			**98**	24				
08:30		46	46			63	39				
08:45		36	34	216	187	57	22	288	124	504	311
09:00		33	28			47	21				
09:15		36	22			39	14				
09:30		47	33			43	20				
09:45		37	18	153	101	47	17	176	72	329	173
10:00		28	19			47	12				
10:15		45	19			43	10				
10:30		54	15			40	18				
10:45		39	23	166	76	41	13	171	53	337	129
11:00		55	12			57	7				
11:15		49	12			45	6				
11:30		45	5			44	3				
11:45		60	6	209	35	59	2	205	18	414	53
Total		1030	3163	1030	3163	1228	2085	1228	2085	2258	5248
Combined Total		4193		4193		3313		3313		7506	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	248	-	-	-	292	-	-	-	-	-
P.H.F.		0.886				0.745					
PM Peak	-	-	03:15	-	-	-	03:00	-	-	-	-
Vol.	-	-	468	-	-	-	315	-	-	-	-
P.H.F.			0.983				0.895				
Percentage		24.6%	75.4%			37.1%	62.9%				
ADT/AADT		ADT 7,506		AADT 7,506							

Counts Unlimited, Inc.

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City of Redlands
Colton Avenue
B/ Grove Street - Lincoln Street
24 Hour Directional Volume Count

RED031
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		10	56			2	79				
12:15		8	73			2	52				
12:30		5	59			4	76				
12:45		5	48	28	236	3	58	11	265	39	501
01:00		4	60			3	61				
01:15		4	56			2	69				
01:30		10	58			3	55				
01:45		5	55	23	229	2	63	10	248	33	477
02:00		10	64			3	56				
02:15		6	68			5	55				
02:30		4	75			3	56				
02:45		5	88	25	295	3	57	14	224	39	519
03:00		3	92			4	**71**				
03:15		2	90			3	**68**				
03:30		2	92			13	**97**				
03:45		4	93	11	367	2	**67**	22	303	33	670
04:00		5	91			12	60				
04:15		2	73			15	65				
04:30		3	85			19	70				
04:45		4	80	14	329	20	56	66	251	80	580
05:00		6	**101**			20	57				
05:15		10	**97**			30	54				
05:30		14	**94**			29	53				
05:45		18	**108**	48	400	27	70	106	234	154	634
06:00		13	92			25	79				
06:15		15	92			40	57				
06:30		17	67			86	60				
06:45		24	73	69	324	73	53	224	249	293	573
07:00		36	68			82	58				
07:15		27	53			89	43				
07:30		**57**	67			**108**	47				
07:45		**46**	48	166	236	**109**	33	388	181	554	417
08:00		**72**	43			**99**	40				
08:15		**79**	53			**108**	30				
08:30		34	48			90	24				
08:45		43	46	228	190	62	16	359	110	587	300
09:00		32	28			55	26				
09:15		23	33			52	15				
09:30		38	30			59	28				
09:45		24	23	117	114	57	20	223	89	340	203
10:00		22	20			49	17				
10:15		39	20			38	11				
10:30		42	16			46	16				
10:45		30	13	133	69	50	10	183	54	316	123
11:00		40	12			57	6				
11:15		46	9			60	7				
11:30		56	9			50	3				
11:45		58	3	200	33	58	3	225	19	425	52
Total		1062	2822	1062	2822	1831	2227	1831	2227	2893	5049
Combined Total		3884		3884		4058		4058		7942	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	254	-	-	-	424	-	-	-	-	-
P.H.F.		0.804				0.972					
PM Peak	-	-	05:00	-	-	-	03:00	-	-	-	-
Vol.	-	-	400	-	-	-	303	-	-	-	-
P.H.F.			0.926				0.781				
Percentage		27.3%	72.7%			45.1%	54.9%				
ADT/AADT		ADT 7,942		AADT 7,942							

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City of Redlands
Colton Avenue
B/ Dearborn Street - Wabash Avenue
24 Hour Directional Volume Count

RED032
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		7	46			2	51				
12:15		6	46			2	47				
12:30		5	52			6	57				
12:45		4	39	22	183	5	53	15	208	37	391
01:00		3	47			1	41				
01:15		2	39			2	55				
01:30		6	50			3	46				
01:45		2	43	13	179	2	46	8	188	21	367
02:00		6	48			3	38				
02:15		2	46			2	39				
02:30		4	56			3	52				
02:45		3	**81**	15	231	2	44	10	173	25	404
03:00		2	**82**			1	**62**				
03:15		4	**113**			7	**84**				
03:30		3	**86**			9	**119**				
03:45		5	72	14	353	0	**58**	17	323	31	676
04:00		4	67			6	42				
04:15		2	66			6	54				
04:30		4	59			14	66				
04:45		6	57	16	249	15	48	41	210	57	459
05:00		8	69			15	53				
05:15		11	71			17	54				
05:30		13	73			22	44				
05:45		17	74	49	287	14	48	68	199	117	486
06:00		17	63			17	64				
06:15		21	60			25	43				
06:30		18	60			58	57				
06:45		29	51	85	234	41	40	141	204	226	438
07:00		45	50			64	31				
07:15		47	48			82	34				
07:30		**56**	51			**82**	34				
07:45		**97**	40	245	189	**101**	44	329	143	574	332
08:00		**118**	53			**107**	42				
08:15		**91**	48			**96**	28				
08:30		56	30			67	23				
08:45		38	45	303	176	47	15	317	108	620	284
09:00		42	24			47	17				
09:15		24	25			37	15				
09:30		32	18			37	15				
09:45		19	22	117	89	45	14	166	61	283	150
10:00		31	16			30	12				
10:15		24	14			32	6				
10:30		35	13			36	10				
10:45		30	13	120	56	43	10	141	38	261	94
11:00		43	4			47	7				
11:15		34	2			42	0				
11:30		42	6			37	3				
11:45		55	4	174	16	63	3	189	13	363	29
Total		1173	2242	1173	2242	1442	1868	1442	1868	2615	4110
Combined Total		3415		3415		3310		3310		6725	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	362	-	-	-	386	-	-	-	-	-
P.H.F.		0.767				0.902					
PM Peak	-	-	02:45	-	-	-	03:00	-	-	-	-
Vol.	-	-	362	-	-	-	323	-	-	-	-
P.H.F.			0.801				0.679				
Percentage		34.3%	65.7%			43.6%	56.4%				
ADT/AADT		ADT 6,725		AADT 6,725							

Counts Unlimited, Inc.

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City of Redlands
Crescent Avenue
B/ Ramona Drive - Serpentine Drive
24 Hour Directional Volume Count

RED033
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	14			1	6				
12:15		0	10			0	9				
12:30		0	7			0	7				
12:45		0	9	0	40	0	9	1	31	1	71
01:00		0	9			0	9				
01:15		0	6			0	17				
01:30		0	14			1	**11**				
01:45		1	21	1	50	0	**20**	1	57	2	107
02:00		0	10			0	**19**				
02:15		0	17			0	**19**				
02:30		1	11			0	6				
02:45		1	18	2	56	1	13	1	57	3	113
03:00		1	14			0	15				
03:15		0	9			0	14				
03:30		0	22			0	14				
03:45		0	28	1	73	0	15	0	58	1	131
04:00		1	19			0	19				
04:15		0	16			0	10				
04:30		3	18			1	10				
04:45		3	20	7	73	2	7	3	46	10	119
05:00		1	**35**			1	12				
05:15		2	**20**			0	13				
05:30		4	**24**			6	14				
05:45		2	**25**	9	104	7	11	14	50	23	154
06:00		1	16			5	13				
06:15		4	17			10	7				
06:30		3	18			9	5				
06:45		10	10	18	61	17	7	41	32	59	93
07:00		11	13			14	11				
07:15		**17**	11			26	9				
07:30		**24**	9			**47**	6				
07:45		**12**	9	64	42	**35**	1	122	27	186	69
08:00		**16**	7			**19**	8				
08:15		16	3			**32**	7				
08:30		11	9			16	10				
08:45		9	6	52	25	20	5	87	30	139	55
09:00		9	0			11	6				
09:15		11	9			7	5				
09:30		7	1			11	3				
09:45		6	3	33	13	12	1	41	15	74	28
10:00		10	4			10	3				
10:15		7	3			9	1				
10:30		6	3			6	0				
10:45		12	0	35	10	12	0	37	4	72	14
11:00		8	0			11	0				
11:15		8	0			8	1				
11:30		17	2			15	1				
11:45		12	1	45	3	10	0	44	2	89	5
Total		267	550	267	550	392	409	392	409	659	959
Combined Total		817		817		801		801		1618	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	69	-	-	-	133	-	-	-	-	-
P.H.F.		0.719				0.707					
PM Peak	-	-	05:00	-	-	-	01:30	-	-	-	-
Vol.	-	-	104	-	-	-	69	-	-	-	-
P.H.F.			0.743				0.863				
Percentage		32.7%	67.3%			48.9%	51.1%				
ADT/AADT		ADT 1,618		AADT 1,618							

Counts Unlimited, Inc.

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City of Redlands
Crestview Road
B/ Ford Street - Buckingham Drive
24 Hour Directional Volume Count

RED034
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	5			0	1				
12:15		0	3			0	0				
12:30		1	5			0	3				
12:45		0	6	1	19	0	1	0	5	1	24
01:00		0	4			0	5				
01:15		0	5			0	2				
01:30		0	5			0	6				
01:45		0	**3**	0	17	0	3	0	16	0	33
02:00		0	**3**			0	5				
02:15		0	**12**			0	3				
02:30		0	**7**			0	3				
02:45		1	2	1	24	0	2	0	13	1	37
03:00		0	4			0	1				
03:15		0	7			0	**10**				
03:30		0	1			0	**3**				
03:45		1	5	1	17	0	**6**	0	20	1	37
04:00		0	3			0	**3**				
04:15		0	5			0	3				
04:30		0	3			0	3				
04:45		0	6	0	17	0	0	0	9	0	26
05:00		0	7			0	3				
05:15		0	5			0	4				
05:30		0	4			0	2				
05:45		0	2	0	18	1	3	1	12	1	30
06:00		1	2			2	6				
06:15		2	2			0	1				
06:30		1	4			0	1				
06:45		5	4	9	12	2	2	4	10	13	22
07:00		7	1			1	1				
07:15		2	2			0	0				
07:30		**4**	0			**5**	1				
07:45		**8**	2	21	5	**4**	0	10	2	31	7
08:00		**15**	1			**8**	2				
08:15		**8**	0			**4**	0				
08:30		4	0			3	1				
08:45		3	4	30	5	0	1	15	4	45	9
09:00		4	3			0	0				
09:15		1	0			1	1				
09:30		3	1			0	0				
09:45		5	0	13	4	4	1	5	2	18	6
10:00		3	0			3	0				
10:15		4	0			1	1				
10:30		5	1			2	1				
10:45		1	0	13	1	3	2	9	4	22	5
11:00		4	1			6	0				
11:15		3	0			2	0				
11:30		2	1			2	1				
11:45		1	0	10	2	2	0	12	1	22	3
Total		99	141	99	141	56	98	56	98	155	239
Combined Total		240		240		154		154		394	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	35	-	-	-	21	-	-	-	-	-
P.H.F.		0.583				0.656					
PM Peak	-	-	01:45	-	-	-	03:15	-	-	-	-
Vol.	-	-	25	-	-	-	22	-	-	-	-
P.H.F.			0.521				0.550				
Percentage		41.3%	58.8%			36.4%	63.6%				
ADT/AADT		ADT 394		AADT 394							

Counts Unlimited, Inc.

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City of Redlands
Cypress Avenue
B/ Terracina Boulevard - Center Street
24 Hour Directional Volume Count

RED035
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	47			0	33				
12:15		1	**65**			3	25				
12:30		2	**96**			1	41				
12:45		5	**78**	11	286	1	**219**	5	318	16	604
01:00		3	**55**			0	**81**				
01:15		2	30			3	**37**				
01:30		2	29			2	**43**				
01:45		3	43	10	157	2	46	7	207	17	364
02:00		3	64			1	44				
02:15		0	48			2	37				
02:30		3	45			3	36				
02:45		0	48	6	205	0	26	6	143	12	348
03:00		2	56			2	38				
03:15		4	40			2	41				
03:30		3	52			1	69				
03:45		1	44	10	192	2	45	7	193	17	385
04:00		0	42			0	38				
04:15		3	45			4	32				
04:30		3	70			5	36				
04:45		5	65	11	222	7	40	16	146	27	368
05:00		6	77			3	30				
05:15		5	76			6	31				
05:30		6	55			12	34				
05:45		5	50	22	258	16	33	37	128	59	386
06:00		9	48			14	38				
06:15		11	35			21	22				
06:30		20	39			31	44				
06:45		16	30	56	152	44	38	110	142	166	294
07:00		30	21			33	24				
07:15		29	26			56	20				
07:30		45	25			57	21				
07:45		**79**	25	183	97	**94**	22	240	87	423	184
08:00		**91**	21			**110**	21				
08:15		**98**	13			**185**	22				
08:30		**87**	21			**172**	19				
08:45		37	18	313	73	61	12	528	74	841	147
09:00		27	15			30	7				
09:15		27	11			26	9				
09:30		30	9			24	10				
09:45		28	10	112	45	24	7	104	33	216	78
10:00		37	9			42	4				
10:15		27	8			33	8				
10:30		26	8			27	3				
10:45		28	4	118	29	24	4	126	19	244	48
11:00		31	4			25	2				
11:15		29	7			32	2				
11:30		25	2			30	3				
11:45		47	4	132	17	30	4	117	11	249	28
Total		984	1733	984	1733	1303	1501	1303	1501	2287	3234
Combined Total		2717		2717		2804		2804		5521	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	355	-	-	-	561	-	-	-	-	-
P.H.F.		0.906				0.758					
PM Peak	-	-	00:15	-	-	-	00:45	-	-	-	-
Vol.	-	-	294	-	-	-	380	-	-	-	-
P.H.F.			0.766				0.434				
Percentage		36.2%	63.8%			46.5%	53.5%				
ADT/AADT		ADT 5,521		AADT 5,521							

Counts Unlimited, Inc.

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City of Redlands
Cypress Avenue
B/ Center Street - Redlands Boulevard
24 Hour Directional Volume Count

RED036
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		6	60			2	43				
12:15		5	50			0	62				
12:30		1	55			6	89				
12:45		2	102	14	267	4	67	12	261	26	528
01:00		0	64			1	54				
01:15		5	55			3	66				
01:30		2	61			3	74				
01:45		3	52	10	232	1	69	8	263	18	495
02:00		2	68			2	60				
02:15		0	68			4	61				
02:30		4	52			2	61				
02:45		2	76	8	264	1	50	9	232	17	496
03:00		1	82			2	66				
03:15		1	80			2	**64**				
03:30		2	85			4	**113**				
03:45		3	76	7	323	3	**82**	11	325	18	648
04:00		1	73			2	**69**				
04:15		4	76			6	50				
04:30		5	**91**			6	61				
04:45		2	**85**	12	325	6	51	20	231	32	556
05:00		8	**95**			7	57				
05:15		10	**98**			10	55				
05:30		13	79			14	60				
05:45		12	66	43	338	21	62	52	234	95	572
06:00		14	68			19	56				
06:15		23	62			31	50				
06:30		39	46			48	65				
06:45		41	54	117	230	74	74	172	245	289	475
07:00		32	34			57	33				
07:15		38	43			82	36				
07:30		58	37			101	41				
07:45		**67**	37	195	151	**178**	39	418	149	613	300
08:00		**95**	31			**102**	38				
08:15		**92**	13			**151**	38				
08:30		**78**	19			**125**	24				
08:45		44	22	309	85	55	21	433	121	742	206
09:00		38	24			44	17				
09:15		33	12			62	21				
09:30		37	17			41	20				
09:45		36	13	144	66	49	13	196	71	340	137
10:00		42	13			55	13				
10:15		35	12			55	10				
10:30		35	7			46	6				
10:45		40	11	152	43	42	10	198	39	350	82
11:00		58	4			34	3				
11:15		50	7			44	6				
11:30		47	6			59	6				
11:45		62	9	217	26	62	5	199	20	416	46
Total		1228	2350	1228	2350	1728	2191	1728	2191	2956	4541
Combined Total		3578		3578		3919		3919		7497	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	332	-	-	-	556	-	-	-	-	-
P.H.F.		0.874				0.781					
PM Peak	-	-	04:30	-	-	-	03:15	-	-	-	-
Vol.	-	-	369	-	-	-	328	-	-	-	-
P.H.F.			0.941				0.726				
Percentage		34.3%	65.7%			44.1%	55.9%				
ADT/AADT		ADT 7,497		AADT 7,497							

Counts Unlimited, Inc.

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City of Redlands
Cypress Avenue
B/ Redlands Boulevard - Citrus Avenue
24 Hour Directional Volume Count

RED037
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	58			3	51				
12:15		4	49			2	60				
12:30		6	60			3	47				
12:45		4	69	19	236	1	48	9	206	28	442
01:00		4	59			3	45				
01:15		2	68			2	54				
01:30		5	80			1	43				
01:45		6	71	17	278	0	42	6	184	23	462
02:00		5	66			3	63				
02:15		3	80			0	81				
02:30		1	77			3	47				
02:45		3	71	12	294	1	58	7	249	19	543
03:00		1	**78**			1	59				
03:15		4	**123**			3	**84**				
03:30		2	**110**			1	**115**				
03:45		5	**72**	12	383	4	**77**	9	335	21	718
04:00		4	76			1	**66**				
04:15		6	54			5	45				
04:30		6	63			6	66				
04:45		19	65	35	258	8	74	20	251	55	509
05:00		7	64			7	80				
05:15		8	80			5	56				
05:30		12	58			17	69				
05:45		20	65	47	267	8	69	37	274	84	541
06:00		31	56			21	67				
06:15		26	59			23	54				
06:30		34	52			32	45				
06:45		65	51	156	218	36	41	112	207	268	425
07:00		51	48			46	46				
07:15		83	45			47	33				
07:30		**120**	37			44	38				
07:45		**119**	38	373	168	**82**	32	219	149	592	317
08:00		**129**	39			**82**	35				
08:15		**161**	40			**90**	22				
08:30		96	25			**74**	23				
08:45		85	26	471	130	39	17	285	97	756	227
09:00		56	23			39	27				
09:15		64	24			42	23				
09:30		50	22			47	22				
09:45		64	21	234	90	34	12	162	84	396	174
10:00		55	15			45	9				
10:15		67	12			35	6				
10:30		58	10			36	11				
10:45		57	11	237	48	39	1	155	27	392	75
11:00		56	6			53	7				
11:15		48	7			51	6				
11:30		63	5			56	8				
11:45		75	8	242	26	47	11	207	32	449	58
Total		1855	2396	1855	2396	1228	2095	1228	2095	3083	4491
Combined Total		4251		4251		3323		3323		7574	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	529	-	-	-	328	-	-	-	-	-
P.H.F.		0.821				0.911					
PM Peak	-	-	03:00	-	-	-	03:15	-	-	-	-
Vol.	-	-	383	-	-	-	342	-	-	-	-
P.H.F.			0.778				0.743				
Percentage		43.6%	56.4%			37.0%	63.0%				
ADT/AADT		ADT 7,574		AADT 7,574							

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City of Redlands
Dearborn Street
B/ Fifth Avenue - Colton Avenue
24 Hour Directional Volume Count

RED038
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	56			1	54				
12:15		3	30			2	29				
12:30		4	33			3	33				
12:45		0	34	9	153	0	38	6	154	15	307
01:00		1	42			0	24				
01:15		0	27			1	30				
01:30		3	33			3	30				
01:45		2	26	6	128	1	39	5	123	11	251
02:00		3	39			2	23				
02:15		1	30			1	24				
02:30		1	31			1	42				
02:45		1	43	6	143	0	**45**	4	134	10	277
03:00		0	**37**			1	**56**				
03:15		0	**90**			3	**52**				
03:30		0	**71**			1	**61**				
03:45		1	**44**	1	242	1	44	6	213	7	455
04:00		2	36			5	31				
04:15		2	47			4	35				
04:30		1	40			2	28				
04:45		3	57	8	180	6	48	17	142	25	322
05:00		1	54			5	36				
05:15		5	44			5	37				
05:30		1	41			3	38				
05:45		2	44	9	183	12	31	25	142	34	325
06:00		5	42			10	50				
06:15		11	43			16	42				
06:30		5	32			17	36				
06:45		21	35	42	152	23	31	66	159	108	311
07:00		19	35			45	25				
07:15		29	35			44	25				
07:30		**58**	31			51	15				
07:45		**68**	29	174	130	**64**	21	204	86	378	216
08:00		**51**	25			**59**	8				
08:15		**62**	24			**75**	20				
08:30		54	18			**58**	15				
08:45		30	32	197	99	36	13	228	56	425	155
09:00		21	26			16	9				
09:15		20	12			25	9				
09:30		18	16			35	5				
09:45		19	16	78	70	28	5	104	28	182	98
10:00		18	11			27	6				
10:15		23	12			33	3				
10:30		24	6			17	6				
10:45		29	8	94	37	32	3	109	18	203	55
11:00		29	3			34	5				
11:15		38	2			28	3				
11:30		46	5			26	3				
11:45		54	7	167	17	38	7	126	18	293	35
Total		791	1534	791	1534	900	1273	900	1273	1691	2807
Combined Total		2325		2325		2173		2173		4498	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	239	-	-	-	256	-	-	-	-	-
P.H.F.		0.879				0.853					
PM Peak	-	-	03:00	-	-	-	02:45	-	-	-	-
Vol.	-	-	242	-	-	-	214	-	-	-	-
P.H.F.			0.672				0.877				
Percentage		34.0%	66.0%			41.4%	58.6%				
ADT/AADT		ADT 4,498		AADT 4,498							

Counts Unlimited, Inc.

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City of Redlands
Dearborn Street
B/ Colton Avenue - Lugonia Avenue
24 Hour Directional Volume Count

RED039
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	15			4	26				
12:15		2	25			1	17				
12:30		2	48			1	20				
12:45		3	24	9	112	0	20	6	83	15	195
01:00		1	21			2	22				
01:15		1	19			0	25				
01:30		0	18			2	22				
01:45		3	23	5	81	3	19	7	88	12	169
02:00		2	22			1	20				
02:15		0	25			0	20				
02:30		0	24			0	23				
02:45		0	14	2	85	3	18	4	81	6	166
03:00		1	8			1	11				
03:15		2	26			0	29				
03:30		0	29			1	**44**				
03:45		3	42	6	105	0	**33**	2	117	8	222
04:00		0	61			0	**39**				
04:15		2	25			1	**33**				
04:30		1	30			3	33				
04:45		0	19	3	135	3	33	7	138	10	273
05:00		3	17			2	25				
05:15		1	**42**			1	29				
05:30		1	**51**			1	33				
05:45		4	**33**	9	143	3	26	7	113	16	256
06:00		3	**33**			3	36				
06:15		5	39			4	27				
06:30		3	27			10	53				
06:45		7	36	18	135	15	26	32	142	50	277
07:00		8	19			11	31				
07:15		11	27			22	26				
07:30		12	21			21	15				
07:45		30	24	61	91	31	22	85	94	146	185
08:00		**37**	14			**50**	34				
08:15		**43**	8			**33**	15				
08:30		**26**	15			**43**	24				
08:45		**45**	11	151	48	**57**	15	183	88	334	136
09:00		32	10			35	9				
09:15		10	19			21	10				
09:30		11	16			8	9				
09:45		14	7	67	52	16	14	80	42	147	94
10:00		12	9			20	7				
10:15		20	5			16	4				
10:30		13	5			15	9				
10:45		14	7	59	26	21	6	72	26	131	52
11:00		15	4			12	2				
11:15		25	5			22	4				
11:30		26	2			27	4				
11:45		18	3	84	14	18	1	79	11	163	25
Total		474	1027	474	1027	564	1023	564	1023	1038	2050
Combined Total		1501		1501		1587		1587		3088	
AM Peak	-	08:00	-	-	-	08:00	-	-	-	-	-
Vol.	-	151	-	-	-	183	-	-	-	-	-
P.H.F.		0.839				0.803					
PM Peak	-	-	05:15	-	-	-	03:30	-	-	-	-
Vol.	-	-	159	-	-	-	149	-	-	-	-
P.H.F.			0.652				0.847				
Percentage		31.6%	68.4%			35.5%	64.5%				
ADT/AADT		ADT 3,088		AADT 3,088							

Counts Unlimited, Inc.

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City of Redlands
Dearborn Street
B/ Lugonia Avenue - San Bernardino Avenue
24 Hour Directional Volume Count

RED040
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	14			1	7				
12:15		2	16			0	13				
12:30		2	8			0	6				
12:45		0	6	4	44	0	11	1	37	5	81
01:00		1	11			1	3				
01:15		2	17			1	12				
01:30		0	12			0	7				
01:45		0	9	3	49	0	12	2	34	5	83
02:00		1	17			0	18				
02:15		0	17			1	10				
02:30		0	12			0	8				
02:45		3	12	4	58	0	15	1	51	5	109
03:00		1	13			0	13				
03:15		2	12			0	23				
03:30		1	24			0	17				
03:45		0	13	4	62	1	23	1	76	5	138
04:00		1	11			0	**23**				
04:15		0	13			1	**23**				
04:30		2	19			3	**23**				
04:45		0	22	3	65	1	**24**	5	93	8	158
05:00		2	28			3	8				
05:15		2	10			3	25				
05:30		3	**20**			1	15				
05:45		2	**27**	9	85	1	25	8	73	17	158
06:00		4	**25**			2	28				
06:15		8	**21**			5	16				
06:30		11	7			5	24				
06:45		9	15	32	68	6	16	18	84	50	152
07:00		13	9			11	9				
07:15		15	13			11	10				
07:30		**29**	10			**21**	21				
07:45		**15**	6	72	38	**18**	16	61	56	133	94
08:00		**17**	8			**18**	24				
08:15		**16**	10			**16**	8				
08:30		12	3			16	6				
08:45		10	5	55	26	15	4	65	42	120	68
09:00		6	5			4	6				
09:15		4	6			6	2				
09:30		10	6			10	2				
09:45		10	3	30	20	11	4	31	14	61	34
10:00		6	4			5	2				
10:15		10	2			8	5				
10:30		3	2			9	4				
10:45		15	0	34	8	8	1	30	12	64	20
11:00		12	2			11	0				
11:15		15	2			7	1				
11:30		10	0			3	2				
11:45		10	0	47	4	12	1	33	4	80	8
Total		297	527	297	527	256	576	256	576	553	1103
Combined Total		824		824		832		832		1656	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	77	-	-	-	73	-	-	-	-	-
P.H.F.		0.664				0.869					
PM Peak	-	-	05:30	-	-	-	04:00	-	-	-	-
Vol.	-	-	93	-	-	-	93	-	-	-	-
P.H.F.			0.861				0.969				
Percentage		36.0%	64.0%			30.8%	69.2%				
ADT/AADT		ADT 1,656		AADT 1,656							

Counts Unlimited, Inc.

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City of Redlands
Dearborn Street
B/ San Bernardino Avenue - Sessums Drive
24 Hour Directional Volume Count

RED041
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	9			0	4				
12:15		2	9			0	6				
12:30		1	5			1	9				
12:45		0	5	3	28	0	8	1	27	4	55
01:00		2	3			2	5				
01:15		0	11			0	8				
01:30		0	5			0	3				
01:45		0	11	2	30	0	7	2	23	4	53
02:00		1	8			0	8				
02:15		0	8			0	3				
02:30		0	6			0	6				
02:45		0	11	1	33	0	8	0	25	1	58
03:00		0	8			0	12				
03:15		0	8			0	14				
03:30		1	14			1	13				
03:45		0	7	1	37	0	16	1	55	2	92
04:00		0	9			2	19				
04:15		1	4			0	21				
04:30		0	11			0	17				
04:45		1	12	2	36	1	23	3	80	5	116
05:00		1	19			1	24				
05:15		2	13			0	22				
05:30		2	**23**			1	**21**				
05:45		0	**33**	5	88	2	**29**	4	96	9	184
06:00		2	**27**			3	**25**				
06:15		4	**29**			0	**26**				
06:30		6	13			4	14				
06:45		6	17	18	86	2	11	9	76	27	162
07:00		**9**	15			6	10				
07:15		**11**	5			4	17				
07:30		**7**	20			**8**	23				
07:45		**16**	19	43	59	**12**	24	30	74	73	133
08:00		9	9			**9**	33				
08:15		4	4			**8**	13				
08:30		7	3			4	12				
08:45		5	5	25	21	3	3	24	61	49	82
09:00		5	9			3	4				
09:15		5	2			5	3				
09:30		6	4			9	2				
09:45		5	4	21	19	5	3	22	12	43	31
10:00		5	4			7	2				
10:15		1	3			7	5				
10:30		1	4			8	3				
10:45		7	1	14	12	5	3	27	13	41	25
11:00		8	0			3	0				
11:15		6	3			4	1				
11:30		7	2			9	1				
11:45		5	1	26	6	4	2	20	4	46	10
Total		161	455	161	455	143	546	143	546	304	1001
Combined Total		616		616		689		689		1305	
AM Peak	-	07:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	43	-	-	-	37	-	-	-	-	-
P.H.F.		0.672				0.771					
PM Peak	-	-	05:30	-	-	-	05:30	-	-	-	-
Vol.	-	-	112	-	-	-	101	-	-	-	-
P.H.F.			0.848				0.871				
Percentage		26.1%	73.9%			20.8%	79.2%				
ADT/AADT		ADT 1,305		AADT 1,305							

Counts Unlimited, Inc.

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City of Redlands
Elizabeth Street
B/ Garden Street - Crescent Avenue
24 Hour Directional Volume Count

RED042
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	11			0	8				
12:15		1	7			0	9				
12:30		1	13			0	6				
12:45		0	12	2	43	0	7	0	30	2	73
01:00		0	7			0	5				
01:15		0	9			0	8				
01:30		0	7			0	9				
01:45		1	20	1	43	0	**22**	0	44	1	87
02:00		2	18			0	**40**				
02:15		0	9			0	**12**				
02:30		0	7			0	**18**				
02:45		0	11	2	45	0	8	0	78	2	123
03:00		0	17			1	9				
03:15		0	18			0	15				
03:30		1	13			1	11				
03:45		0	20	1	68	0	7	2	42	3	110
04:00		0	17			0	9				
04:15		0	18			0	12				
04:30		0	16			0	13				
04:45		0	22	0	73	0	11	0	45	0	118
05:00		1	23			1	8				
05:15		1	**31**			0	5				
05:30		1	**20**			1	6				
05:45		3	**27**	6	101	1	8	3	27	9	128
06:00		0	**24**			3	11				
06:15		2	16			10	8				
06:30		0	9			6	9				
06:45		5	5	7	54	20	6	39	34	46	88
07:00		8	10			12	9				
07:15		**15**	8			16	4				
07:30		**28**	7			**60**	5				
07:45		**19**	5	70	30	**34**	1	122	19	192	49
08:00		**11**	9			**22**	4				
08:15		9	5			**30**	6				
08:30		10	9			17	2				
08:45		10	2	40	25	10	2	79	14	119	39
09:00		11	3			14	2				
09:15		6	2			5	2				
09:30		11	1			11	4				
09:45		3	2	31	8	9	2	39	10	70	18
10:00		8	3			6	2				
10:15		7	2			8	0				
10:30		8	0			7	1				
10:45		6	2	29	7	7	1	28	4	57	11
11:00		7	2			7	1				
11:15		10	2			9	3				
11:30		8	0			4	0				
11:45		16	2	41	6	10	1	30	5	71	11
Total		230	503	230	503	342	352	342	352	572	855
Combined Total		733		733		694		694		1427	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	73	-	-	-	146	-	-	-	-	-
P.H.F.		0.652				0.608					
PM Peak	-	-	05:15	-	-	-	01:45	-	-	-	-
Vol.	-	-	102	-	-	-	92	-	-	-	-
P.H.F.			0.823				0.575				
Percentage		31.4%	68.6%			49.3%	50.7%				
ADT/AADT		ADT 1,427		AADT 1,427							

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City of Redlands
Fern Avenue
B/ Redlands Boulevard - Cajon Street
24 Hour Directional Volume Count

RED043
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	29			0	41				
12:15		2	33			3	31				
12:30		1	30			1	28				
12:45		0	34	4	126	1	59	5	159	9	285
01:00		2	41			0	43				
01:15		2	48			1	32				
01:30		1	36			0	25				
01:45		1	50	6	175	1	41	2	141	8	316
02:00		1	32			2	55				
02:15		0	43			0	55				
02:30		2	43			0	36				
02:45		1	33	4	151	4	**60**	6	206	10	357
03:00		1	**28**			2	**68**				
03:15		0	**74**			1	**94**				
03:30		3	**95**			0	**74**				
03:45		0	**42**	4	239	2	51	5	287	9	526
04:00		1	23			2	41				
04:15		1	27			1	46				
04:30		0	30			2	48				
04:45		1	33	3	113	3	56	8	191	11	304
05:00		1	35			3	62				
05:15		2	25			6	49				
05:30		7	18			5	44				
05:45		10	30	20	108	7	46	21	201	41	309
06:00		2	28			8	39				
06:15		11	24			7	37				
06:30		15	27			12	30				
06:45		21	36	49	115	20	26	47	132	96	247
07:00		29	15			23	37				
07:15		45	24			27	31				
07:30		**62**	19			38	15				
07:45		**82**	20	218	78	**69**	18	157	101	375	179
08:00		**73**	12			**112**	22				
08:15		**94**	9			**113**	12				
08:30		42	21			**52**	19				
08:45		42	18	251	60	43	9	320	62	571	122
09:00		39	19			39	14				
09:15		27	13			29	7				
09:30		30	7			30	6				
09:45		38	9	134	48	47	10	145	37	279	85
10:00		33	6			34	4				
10:15		20	8			30	4				
10:30		36	5			28	1				
10:45		36	3	125	22	29	3	121	12	246	34
11:00		25	5			25	10				
11:15		26	2			31	5				
11:30		26	0			30	1				
11:45		29	0	106	7	27	2	113	18	219	25
Total		924	1242	924	1242	950	1547	950	1547	1874	2789
Combined Total		2166		2166		2497		2497		4663	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	311	-	-	-	346	-	-	-	-	-
P.H.F.		0.827				0.765					
PM Peak	-	-	03:00	-	-	-	02:45	-	-	-	-
Vol.	-	-	239	-	-	-	296	-	-	-	-
P.H.F.			0.629				0.787				
Percentage		42.7%	57.3%			38.0%	62.0%				
ADT/AADT		ADT 4,663		AADT 4,663							

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City of Redlands
Fern Avenue
B/ Cajon Street - Center Street
24 Hour Directional Volume Count

RED044
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	31			0	35				
12:15		3	19			2	31				
12:30		1	26			2	34				
12:45		1	66	7	142	1	31	5	131	12	273
01:00		1	35			2	37				
01:15		1	25			1	42				
01:30		0	31			1	26				
01:45		1	30	3	121	1	40	5	145	8	266
02:00		2	40			1	35				
02:15		0	41			0	37				
02:30		0	33			1	28				
02:45		4	**51**	6	165	1	**38**	3	138	9	303
03:00		2	**59**			1	**33**				
03:15		1	**71**			0	**56**				
03:30		2	**53**			3	**89**				
03:45		2	45	7	228	0	30	4	208	11	436
04:00		1	40			1	38				
04:15		0	38			1	26				
04:30		1	43			0	35				
04:45		6	29	8	150	1	38	3	137	11	287
05:00		2	45			1	42				
05:15		5	32			2	36				
05:30		4	41			7	30				
05:45		4	44	15	162	5	29	15	137	30	299
06:00		4	28			3	21				
06:15		6	28			10	28				
06:30		7	15			9	25				
06:45		23	21	40	92	15	39	37	113	77	205
07:00		26	24			19	14				
07:15		29	21			30	21				
07:30		51	13			**41**	16				
07:45		**61**	11	167	69	**60**	15	150	66	317	135
08:00		**106**	13			**56**	11				
08:15		**74**	8			**82**	11				
08:30		**53**	7			34	17				
08:45		28	8	261	36	36	15	208	54	469	90
09:00		28	7			21	12				
09:15		32	4			23	12				
09:30		26	5			20	10				
09:45		32	6	118	22	27	4	91	38	209	60
10:00		40	5			30	11				
10:15		20	4			31	8				
10:30		18	2			30	5				
10:45		23	5	101	16	32	2	123	26	224	42
11:00		20	5			35	4				
11:15		25	3			26	1				
11:30		31	2			32	3				
11:45		23	2	99	12	35	1	128	9	227	21
Total		832	1215	832	1215	772	1202	772	1202	1604	2417
Combined Total		2047		2047		1974		1974		4021	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	294	-	-	-	239	-	-	-	-	-
P.H.F.		0.693				0.729					
PM Peak	-	-	02:45	-	-	-	02:45	-	-	-	-
Vol.	-	-	234	-	-	-	216	-	-	-	-
P.H.F.			0.824				0.607				
Percentage		40.6%	59.4%			39.1%	60.9%				
ADT/AADT		ADT 4,021		AADT 4,021							

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City of Redlands
Fern Avenue
B/ Center Street - San Mateo Street
24 Hour Directional Volume Count

RED045
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	24			0	25				
12:15		1	**28**			1	26				
12:30		2	**52**			1	36				
12:45		2	**97**	6	201	1	56	3	143	9	344
01:00		1	**34**			0	36				
01:15		1	24			0	29				
01:30		0	29			1	26				
01:45		1	29	3	116	0	29	1	120	4	236
02:00		3	31			1	36				
02:15		2	42			1	41				
02:30		0	24			1	28				
02:45		3	41	8	138	1	**22**	4	127	12	265
03:00		1	45			1	**30**				
03:15		1	57			0	**42**				
03:30		2	45			3	**88**				
03:45		2	44	6	191	0	21	4	181	10	372
04:00		0	48			1	30				
04:15		1	37			1	23				
04:30		2	48			3	24				
04:45		5	27	8	160	2	22	7	99	15	259
05:00		4	50			1	35				
05:15		3	36			4	30				
05:30		6	37			10	26				
05:45		3	37	16	160	10	25	25	116	41	276
06:00		1	28			6	21				
06:15		3	28			10	21				
06:30		3	18			12	20				
06:45		18	25	25	99	19	30	47	92	72	191
07:00		23	19			23	13				
07:15		23	13			32	20				
07:30		48	10			48	11				
07:45		**56**	14	150	56	**63**	13	166	57	316	113
08:00		**100**	18			**53**	10				
08:15		**87**	16			**75**	7				
08:30		**64**	7			**51**	12				
08:45		25	8	276	49	38	10	217	39	493	88
09:00		28	10			25	13				
09:15		25	3			19	12				
09:30		23	5			30	7				
09:45		22	5	98	23	24	7	98	39	196	62
10:00		27	3			26	8				
10:15		23	5			25	2				
10:30		13	6			33	6				
10:45		17	6	80	20	29	3	113	19	193	39
11:00		16	5			24	4				
11:15		26	2			32	2				
11:30		29	4			17	1				
11:45		37	3	108	14	35	1	108	8	216	22
Total		784	1227	784	1227	793	1040	793	1040	1577	2267
Combined Total		2011		2011		1833		1833		3844	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	307	-	-	-	242	-	-	-	-	-
P.H.F.		0.768				0.807					
PM Peak	-	-	00:15	-	-	-	02:45	-	-	-	-
Vol.	-	-	211	-	-	-	182	-	-	-	-
P.H.F.			0.544				0.517				
Percentage		39.0%	61.0%			43.3%	56.7%				
ADT/AADT		ADT 3,844		AADT 3,844							

Counts Unlimited, Inc.

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City of Redlands
Fern Avenue
B/ San Mateo Street - Terracina Boulevard
24 Hour Directional Volume Count

RED046
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	25			1	26				
12:15		1	34			0	31				
12:30		4	45			1	17				
12:45		3	38	10	142	2	**67**	4	141	14	283
01:00		0	34			1	**37**				
01:15		1	27			0	**27**				
01:30		0	31			2	**22**				
01:45		1	34	2	126	0	29	3	115	5	241
02:00		2	47			2	29				
02:15		0	37			0	25				
02:30		0	29			1	27				
02:45		3	**55**	5	168	0	21	3	102	8	270
03:00		2	**46**			2	28				
03:15		2	**32**			0	24				
03:30		2	**62**			1	66				
03:45		2	54	8	194	2	28	5	146	13	340
04:00		2	39			1	28				
04:15		2	40			1	20				
04:30		2	45			4	30				
04:45		4	36	10	160	1	19	7	97	17	257
05:00		4	44			2	31				
05:15		4	46			2	25				
05:30		2	38			9	23				
05:45		4	38	14	166	4	25	17	104	31	270
06:00		6	23			7	26				
06:15		3	28			18	25				
06:30		13	23			18	18				
06:45		15	20	37	94	26	28	69	97	106	191
07:00		15	22			18	19				
07:15		30	15			39	12				
07:30		**43**	14			36	9				
07:45		**64**	12	152	63	**47**	14	140	54	292	117
08:00		**67**	14			**53**	8				
08:15		**61**	10			**51**	9				
08:30		32	10			**56**	13				
08:45		21	9	181	43	34	6	194	36	375	79
09:00		24	7			17	12				
09:15		25	6			16	11				
09:30		34	9			18	5				
09:45		29	10	112	32	35	5	86	33	198	65
10:00		25	3			24	8				
10:15		27	6			20	4				
10:30		11	3			34	5				
10:45		20	2	83	14	26	6	104	23	187	37
11:00		10	8			32	2				
11:15		24	5			24	5				
11:30		29	7			16	1				
11:45		31	4	94	24	28	0	100	8	194	32
Total		708	1226	708	1226	732	956	732	956	1440	2182
Combined Total		1934		1934		1688		1688		3622	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	235	-	-	-	207	-	-	-	-	-
P.H.F.		0.877				0.924					
PM Peak	-	-	02:45	-	-	-	00:45	-	-	-	-
Vol.	-	-	195	-	-	-	153	-	-	-	-
P.H.F.			0.786				0.571				
Percentage		36.6%	63.4%			43.4%	56.6%				
ADT/AADT		ADT 3,622		AADT 3,622							

Counts Unlimited, Inc.

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City of Redlands
Fifth Avenue
B/ Ford Street - Dearborn Street
24 Hour Directional Volume Count

RED047
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		6	39			2	70				
12:15		3	59			2	75				
12:30		3	74			1	71				
12:45		3	80	15	252	2	88	7	304	22	556
01:00		2	47			0	84				
01:15		4	51			1	55				
01:30		2	58			3	70				
01:45		1	68	9	224	0	60	4	269	13	493
02:00		1	64			0	74				
02:15		0	68			0	72				
02:30		1	72			0	72				
02:45		1	82	3	286	0	59	0	277	3	563
03:00		1	96			1	**81**				
03:15		1	78			4	**105**				
03:30		0	89			2	**77**				
03:45		2	95	4	358	0	**65**	7	328	11	686
04:00		3	91			3	55				
04:15		0	76			5	66				
04:30		2	74			4	70				
04:45		7	**112**	12	353	4	66	16	257	28	610
05:00		4	**110**			12	61				
05:15		10	**141**			10	64				
05:30		16	**94**			16	61				
05:45		9	109	39	454	20	67	58	253	97	707
06:00		14	93			21	64				
06:15		15	98			38	68				
06:30		19	63			42	67				
06:45		29	94	77	348	72	46	173	245	250	593
07:00		37	55			78	59				
07:15		54	55			97	50				
07:30		52	56			136	46				
07:45		**96**	54	239	220	**137**	33	448	188	687	408
08:00		**122**	46			**129**	37				
08:15		**88**	42			**163**	37				
08:30		**58**	47			**158**	29				
08:45		60	35	328	170	66	42	516	145	844	315
09:00		40	31			53	31				
09:15		49	33			42	25				
09:30		67	20			62	24				
09:45		61	12	217	96	63	17	220	97	437	193
10:00		31	6			53	17				
10:15		36	12			54	7				
10:30		50	5			62	5				
10:45		42	13	159	36	36	12	205	41	364	77
11:00		59	11			38	5				
11:15		48	8			60	8				
11:30		47	4			75	3				
11:45		45	10	199	33	54	3	227	19	426	52
Total		1301	2830	1301	2830	1881	2423	1881	2423	3182	5253
Combined Total		4131		4131		4304		4304		8435	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	364	-	-	-	587	-	-	-	-	-
P.H.F.		0.746				0.900					
PM Peak	-	-	04:45	-	-	-	03:00	-	-	-	-
Vol.	-	-	457	-	-	-	328	-	-	-	-
P.H.F.			0.810				0.781				
Percentage		31.5%	68.5%			43.7%	56.3%				
ADT/AADT		ADT 8,435		AADT 8,435							

Counts Unlimited, Inc.

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City of Redlands
Fifth Avenue
B/ Dearborn Street - Fifth Avenue
24 Hour Directional Volume Count

RED048
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	34			2	62				
12:15		4	54			2	**56**				
12:30		2	63			1	**51**				
12:45		1	63	11	214	2	**74**	7	243	18	457
01:00		1	41			0	**86**				
01:15		3	34			0	46				
01:30		1	42			1	55				
01:45		0	50	5	167	0	50	1	237	6	404
02:00		1	54			1	53				
02:15		0	53			0	63				
02:30		0	51			0	68				
02:45		0	51	1	209	0	47	1	231	2	440
03:00		1	54			1	75				
03:15		0	86			2	60				
03:30		0	81			2	47				
03:45		1	68	2	289	0	48	5	230	7	519
04:00		3	86			1	49				
04:15		0	65			0	54				
04:30		2	59			3	56				
04:45		6	**96**	11	306	2	47	6	206	17	512
05:00		6	**100**			5	50				
05:15		8	**112**			8	50				
05:30		19	**81**			10	43				
05:45		8	92	41	385	17	49	40	192	81	577
06:00		14	71			16	45				
06:15		13	83			20	50				
06:30		20	60			29	48				
06:45		29	54	76	268	40	49	105	192	181	460
07:00		34	48			47	43				
07:15		46	41			77	41				
07:30		49	52			**104**	25				
07:45		**62**	35	191	176	**105**	24	333	133	524	309
08:00		**100**	34			**93**	35				
08:15		**78**	30			**112**	34				
08:30		**52**	27			81	32				
08:45		52	24	282	115	42	39	328	140	610	255
09:00		35	18			36	27				
09:15		44	24			34	27				
09:30		54	16			49	22				
09:45		53	10	186	68	51	17	170	93	356	161
10:00		27	6			42	17				
10:15		23	11			39	6				
10:30		32	5			44	6				
10:45		38	11	120	33	32	9	157	38	277	71
11:00		39	10			30	7				
11:15		39	6			44	4				
11:30		40	2			56	3				
11:45		34	9	152	27	53	2	183	16	335	43
Total		1078	2257	1078	2257	1336	1951	1336	1951	2414	4208
Combined Total		3335		3335		3287		3287		6622	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	292	-	-	-	414	-	-	-	-	-
P.H.F.		0.730				0.924					
PM Peak	-	-	04:45	-	-	-	00:15	-	-	-	-
Vol.	-	-	389	-	-	-	267	-	-	-	-
P.H.F.			0.868				0.776				
Percentage		32.3%	67.7%			40.6%	59.4%				
ADT/AADT		ADT 6,622		AADT 6,622							

Counts Unlimited, Inc.

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City of Redlands
Ford Street
B/ Citrus Avenue - Fifth Avenue
24 Hour Directional Volume Count

RED049
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	57			4	20				
12:15		1	36			8	24				
12:30		3	40			1	34				
12:45		0	38	6	171	1	42	14	120	20	291
01:00		1	32			0	37				
01:15		2	36			1	35				
01:30		1	29			1	43				
01:45		0	39	4	136	2	27	4	142	8	278
02:00		5	61			1	37				
02:15		0	33			0	31				
02:30		1	51			0	40				
02:45		0	38	6	183	1	**55**	2	163	8	346
03:00		3	52			2	**70**				
03:15		0	**105**			0	**56**				
03:30		1	**73**			1	**47**				
03:45		3	**56**	7	286	4	47	7	220	14	506
04:00		1	**54**			1	56				
04:15		0	46			2	53				
04:30		1	49			2	47				
04:45		2	64	4	213	4	44	9	200	13	413
05:00		4	57			6	57				
05:15		8	49			8	53				
05:30		4	57			7	51				
05:45		9	59	25	222	19	59	40	220	65	442
06:00		13	57			6	46				
06:15		13	38			19	40				
06:30		20	33			24	42				
06:45		23	34	69	162	34	33	83	161	152	323
07:00		28	41			33	27				
07:15		38	24			42	27				
07:30		47	45			49	22				
07:45		**77**	29	190	139	**49**	29	173	105	363	244
08:00		**77**	36			**61**	20				
08:15		**81**	25			**83**	25				
08:30		**89**	22			**77**	18				
08:45		42	20	289	103	26	20	247	83	536	186
09:00		33	14			33	14				
09:15		28	14			18	16				
09:30		30	11			36	9				
09:45		43	15	134	54	30	8	117	47	251	101
10:00		32	11			37	4				
10:15		27	11			31	6				
10:30		35	16			24	1				
10:45		31	3	125	41	33	5	125	16	250	57
11:00		37	11			26	8				
11:15		44	3			38	6				
11:30		43	1			38	2				
11:45		37	4	161	19	41	1	143	17	304	36
Total		1020	1729	1020	1729	964	1494	964	1494	1984	3223
Combined Total		2749		2749		2458		2458		5207	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	324	-	-	-	270	-	-	-	-	-
P.H.F.		0.910				0.813					
PM Peak	-	-	03:15	-	-	-	02:45	-	-	-	-
Vol.	-	-	288	-	-	-	228	-	-	-	-
P.H.F.			0.686				0.814				
Percentage		37.1%	62.9%			39.2%	60.8%				
ADT/AADT		ADT 5,207		AADT 5,207							

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City of Redlands
Ford Street
B/ Fifth Avenue - Reservoir Road
24 Hour Directional Volume Count

RED050
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		6	94			2	50				
12:15		2	51			5	51				
12:30		2	60			1	49				
12:45		2	64	12	269	1	44	9	194	21	463
01:00		5	53			0	48				
01:15		5	64			3	44				
01:30		2	61			2	51				
01:45		3	64	15	242	4	44	9	187	24	429
02:00		6	71			0	48				
02:15		1	51			2	70				
02:30		1	69			0	49				
02:45		1	**89**	9	280	1	48	3	215	12	495
03:00		3	**114**			4	**57**				
03:15		0	**98**			0	**109**				
03:30		2	**70**			3	**106**				
03:45		2	85	7	367	6	**67**	13	339	20	706
04:00		4	69			3	48				
04:15		0	62			9	53				
04:30		2	72			8	55				
04:45		4	77	10	280	8	53	28	209	38	489
05:00		4	74			15	70				
05:15		9	54			16	77				
05:30		8	75			18	48				
05:45		17	90	38	293	23	55	72	250	110	543
06:00		16	76			29	61				
06:15		16	51			53	49				
06:30		29	66			59	67				
06:45		26	54	87	247	65	57	206	234	293	481
07:00		44	44			73	53				
07:15		37	51			92	49				
07:30		77	59			107	38				
07:45		**100**	55	258	209	**97**	44	369	184	627	393
08:00		**136**	51			**87**	36				
08:15		**91**	40			**94**	34				
08:30		**78**	26			**124**	22				
08:45		42	40	347	157	68	23	373	115	720	272
09:00		51	22			46	24				
09:15		44	19			33	21				
09:30		51	20			53	21				
09:45		48	20	194	81	51	40	183	106	377	187
10:00		35	19			51	14				
10:15		29	17			52	13				
10:30		60	18			48	8				
10:45		41	13	165	67	48	6	199	41	364	108
11:00		54	16			38	9				
11:15		55	6			64	11				
11:30		63	5			57	7				
11:45		52	6	224	33	69	3	228	30	452	63
Total		1366	2525	1366	2525	1692	2104	1692	2104	3058	4629
Combined Total		3891		3891		3796		3796		7687	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	405	-	-	-	402	-	-	-	-	-
P.H.F.		0.744				0.810					
PM Peak	-	-	02:45	-	-	-	03:00	-	-	-	-
Vol.	-	-	371	-	-	-	339	-	-	-	-
P.H.F.			0.814				0.778				
Percentage		35.1%	64.9%			44.6%	55.4%				
ADT/AADT		ADT 7,687		AADT 7,687							

Counts Unlimited, Inc.

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City of Redlands
Ford Street
B/ Reservoir Road - Sunset Drive
24 Hour Directional Volume Count

RED051
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	123			5	53				
12:15		3	66			4	69				
12:30		2	57			4	72				
12:45		3	76	11	322	8	68	21	262	32	584
01:00		1	61			1	62				
01:15		1	75			0	74				
01:30		2	58			1	68				
01:45		3	67	7	261	2	89	4	293	11	554
02:00		1	108			0	63				
02:15		0	73			1	68				
02:30		1	**88**			2	86				
02:45		0	**73**	2	342	0	89	3	306	5	648
03:00		2	**116**			2	77				
03:15		3	**93**			1	**81**				
03:30		4	78			0	**110**				
03:45		2	76	11	363	0	**94**	3	362	14	725
04:00		6	86			0	**79**				
04:15		1	75			2	77				
04:30		5	99			4	76				
04:45		7	90	19	350	3	70	9	302	28	652
05:00		8	79			8	60				
05:15		16	59			15	74				
05:30		19	84			4	90				
05:45		34	69	77	291	4	107	31	331	108	622
06:00		29	72			6	72				
06:15		32	74			14	72				
06:30		48	44			14	57				
06:45		58	50	167	240	54	54	88	255	255	495
07:00		70	58			64	64				
07:15		87	54			93	61				
07:30		**151**	59			**108**	45				
07:45		**153**	42	461	213	**133**	61	398	231	859	444
08:00		**135**	25			**93**	42				
08:15		**103**	27			**96**	34				
08:30		75	22			88	30				
08:45		79	21	392	95	122	25	399	131	791	226
09:00		98	25			68	24				
09:15		72	25			48	20				
09:30		58	17			52	27				
09:45		64	13	292	80	55	19	223	90	515	170
10:00		59	20			54	18				
10:15		54	10			55	22				
10:30		55	10			74	10				
10:45		79	8	247	48	62	10	245	60	492	108
11:00		48	9			76	10				
11:15		75	6			68	6				
11:30		81	4			75	3				
11:45		76	0	280	19	77	2	296	21	576	40
Total		1966	2624	1966	2624	1720	2644	1720	2644	3686	5268
Combined Total		4590		4590		4364		4364		8954	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	542	-	-	-	430	-	-	-	-	-
P.H.F.		0.886				0.808					
PM Peak	-	-	02:30	-	-	-	03:15	-	-	-	-
Vol.	-	-	370	-	-	-	364	-	-	-	-
P.H.F.			0.797				0.827				
Percentage		42.8%	57.2%			39.4%	60.6%				
ADT/AADT		ADT 8,954		AADT 8,954							

Counts Unlimited, Inc.

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City of Redlands
Ford Street
B/ Sunset Drive - Garden Hill Drive
24 Hour Directional Volume Count

RED052
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	16			1	34				
12:15		1	14			1	27				
12:30		2	15			0	18				
12:45		1	10	5	55	1	23	3	102	8	157
01:00		0	17			0	16				
01:15		0	19			2	18				
01:30		0	14			0	28				
01:45		0	4	0	54	1	23	3	85	3	139
02:00		0	23			0	30				
02:15		1	20			0	26				
02:30		0	19			1	26				
02:45		0	**29**	1	91	1	**64**	2	146	3	237
03:00		0	**78**			0	**61**				
03:15		0	**22**			1	**33**				
03:30		1	**28**			1	**39**				
03:45		2	28	3	156	0	38	2	171	5	327
04:00		1	22			0	28				
04:15		0	20			0	36				
04:30		2	17			0	34				
04:45		2	22	5	81	2	32	2	130	7	211
05:00		2	22			3	27				
05:15		4	12			1	19				
05:30		6	15			2	33				
05:45		7	15	19	64	1	20	7	99	26	163
06:00		18	13			1	15				
06:15		12	21			8	25				
06:30		11	11			4	27				
06:45		17	15	58	60	20	19	33	86	91	146
07:00		19	14			29	18				
07:15		**30**	20			**31**	13				
07:30		**51**	16			**64**	19				
07:45		**86**	11	186	61	**81**	11	205	61	391	122
08:00		**41**	11			**48**	8				
08:15		22	5			25	13				
08:30		17	7			37	17				
08:45		20	2	100	25	58	11	168	49	268	74
09:00		20	2			29	20				
09:15		16	4			12	6				
09:30		10	9			20	7				
09:45		16	0	62	15	20	6	81	39	143	54
10:00		14	6			12	6				
10:15		20	1			14	6				
10:30		6	2			15	3				
10:45		6	0	46	9	8	0	49	15	95	24
11:00		18	0			21	1				
11:15		22	1			21	2				
11:30		18	0			36	0				
11:45		8	2	66	3	36	2	114	5	180	8
Total		551	674	551	674	669	988	669	988	1220	1662
Combined Total		1225		1225		1657		1657		2882	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	208	-	-	-	224	-	-	-	-	-
P.H.F.		0.605				0.691					
PM Peak	-	-	02:45	-	-	-	02:45	-	-	-	-
Vol.	-	-	157	-	-	-	197	-	-	-	-
P.H.F.			0.503				0.770				
Percentage		45.0%	55.0%			40.4%	59.6%				
ADT/AADT		ADT 2,882		AADT 2,882							

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City of Redlands
Franklin Avenue
B/ Eucalyptus Drive - Oak Street
24 Hour Directional Volume Count

RED053
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	5			0	4				
12:15		0	**10**			1	7				
12:30		0	**5**			0	3				
12:45		0	**7**	0	27	0	**10**	1	24	1	51
01:00		0	**9**			0	**9**				
01:15		0	6			0	**11**				
01:30		0	1			0	**7**				
01:45		0	7	0	23	0	6	0	33	0	56
02:00		0	7			0	9				
02:15		0	8			0	8				
02:30		1	8			0	3				
02:45		0	7	1	30	0	3	0	23	1	53
03:00		1	6			0	7				
03:15		0	4			0	7				
03:30		0	4			0	6				
03:45		0	6	1	20	0	5	0	25	1	45
04:00		0	6			0	5				
04:15		0	3			0	6				
04:30		0	4			0	8				
04:45		0	7	0	20	0	4	0	23	0	43
05:00		0	9			0	6				
05:15		1	9			2	3				
05:30		0	3			2	6				
05:45		1	6	2	27	1	6	5	21	7	48
06:00		2	7			1	1				
06:15		0	6			0	5				
06:30		0	3			3	5				
06:45		4	5	6	21	8	10	12	21	18	42
07:00		2	2			2	4				
07:15		3	4			**14**	7				
07:30		**5**	1			**18**	3				
07:45		**11**	3	21	10	**10**	3	44	17	65	27
08:00		**3**	4			**7**	2				
08:15		**6**	2			9	0				
08:30		5	2			8	4				
08:45		7	1	21	9	5	0	29	6	50	15
09:00		7	0			11	1				
09:15		4	1			4	0				
09:30		3	1			5	0				
09:45		4	1	18	3	6	1	26	2	44	5
10:00		2	1			6	0				
10:15		6	0			5	2				
10:30		5	1			10	0				
10:45		5	0	18	2	6	0	27	2	45	4
11:00		5	0			7	0				
11:15		6	0			9	0				
11:30		5	0			8	0				
11:45		7	0	23	0	9	0	33	0	56	0
Total		111	192	111	192	177	197	177	197	288	389
Combined Total		303		303		374		374		677	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	25	-	-	-	49	-	-	-	-	-
P.H.F.		0.568				0.681					
PM Peak	-	-	00:15	-	-	-	00:45	-	-	-	-
Vol.	-	-	31	-	-	-	37	-	-	-	-
P.H.F.			0.775				0.841				
Percentage		36.6%	63.4%			47.3%	52.7%				
ADT/AADT		ADT 677		AADT 677							

Counts Unlimited, Inc.

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City of Redlands
Franklin Avenue
B/ Oak Street - Garden Street
24 Hour Directional Volume Count

RED054
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	6			0	10				
12:15		0	5			0	7				
12:30		0	6			0	3				
12:45		0	7	0	24	0	8	0	28	0	52
01:00		0	4			0	4				
01:15		1	3			0	7				
01:30		0	**9**			0	7				
01:45		0	**3**	1	19	0	11	0	29	1	48
02:00		0	**17**			0	9				
02:15		0	**9**			0	6				
02:30		1	4			0	7				
02:45		1	7	2	37	0	9	0	31	2	68
03:00		0	14			1	5				
03:15		0	6			0	9				
03:30		0	7			0	5				
03:45		0	11	0	38	0	3	1	22	1	60
04:00		0	6			0	**16**				
04:15		0	6			0	**5**				
04:30		1	9			0	**9**				
04:45		1	6	2	27	0	**8**	0	38	2	65
05:00		1	4			2	4				
05:15		2	5			0	7				
05:30		3	5			0	6				
05:45		0	5	6	19	0	8	2	25	8	44
06:00		2	4			1	8				
06:15		3	4			0	7				
06:30		4	1			2	6				
06:45		10	5	19	14	4	3	7	24	26	38
07:00		**9**	3			**6**	4				
07:15		**11**	3			**3**	7				
07:30		**22**	3			**19**	1				
07:45		**12**	1	54	10	**6**	2	34	14	88	24
08:00		4	1			6	8				
08:15		8	3			1	4				
08:30		7	1			4	2				
08:45		8	0	27	5	8	2	19	16	46	21
09:00		7	0			7	4				
09:15		8	1			3	2				
09:30		8	2			5	0				
09:45		7	2	30	5	6	3	21	9	51	14
10:00		3	1			5	4				
10:15		5	3			4	0				
10:30		3	2			7	2				
10:45		3	0	14	6	3	0	19	6	33	12
11:00		6	2			7	0				
11:15		6	0			6	0				
11:30		9	1			1	0				
11:45		9	0	30	3	5	1	19	1	49	4
Total		185	207	185	207	122	243	122	243	307	450
Combined Total		392		392		365		365		757	
AM Peak	-	07:00	-	-	-	07:00	-	-	-	-	-
Vol.	-	54	-	-	-	34	-	-	-	-	-
P.H.F.		0.614				0.447					
PM Peak	-	-	01:30	-	-	-	04:00	-	-	-	-
Vol.	-	-	38	-	-	-	38	-	-	-	-
P.H.F.			0.559				0.594				
Percentage		47.2%	52.8%			33.4%	66.6%				
ADT/AADT		ADT 757		AADT 757							

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City of Redlands
Franklin Avenue
B/ Mariposa Drive - Cajon Street
24 Hour Directional Volume Count

RED055
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	22			0	28				
12:15		2	21			2	27				
12:30		0	34			1	23				
12:45		0	27	2	104	1	26	4	104	6	208
01:00		2	27			2	29				
01:15		1	15			1	24				
01:30		0	30			1	27				
01:45		0	**23**	3	95	1	32	5	112	8	207
02:00		0	**43**			2	36				
02:15		1	**36**			0	22				
02:30		0	**38**			1	21				
02:45		0	18	1	135	0	29	3	108	4	243
03:00		0	21			0	36				
03:15		0	29			0	37				
03:30		2	27			1	29				
03:45		0	21	2	98	1	26	2	128	4	226
04:00		1	26			0	33				
04:15		1	26			0	33				
04:30		3	26			0	35				
04:45		0	26	5	104	0	**47**	0	148	5	252
05:00		4	23			0	**40**				
05:15		2	17			0	**54**				
05:30		1	27			3	**46**				
05:45		3	14	10	81	4	47	7	187	17	268
06:00		7	26			3	25				
06:15		8	23			6	32				
06:30		13	16			5	21				
06:45		22	8	50	73	6	18	20	96	70	169
07:00		26	15			10	15				
07:15		31	9			15	27				
07:30		**58**	8			20	23				
07:45		**41**	9	156	41	**38**	11	83	76	239	117
08:00		**37**	15			**20**	13				
08:15		**42**	6			**16**	14				
08:30		25	4			**25**	13				
08:45		32	5	136	30	33	6	94	46	230	76
09:00		27	5			20	7				
09:15		27	4			16	4				
09:30		26	9			25	4				
09:45		27	3	107	21	18	1	79	16	186	37
10:00		24	1			18	4				
10:15		19	4			14	2				
10:30		23	1			26	1				
10:45		24	2	90	8	20	2	78	9	168	17
11:00		27	0			22	5				
11:15		24	2			22	7				
11:30		33	0			15	0				
11:45		21	0	105	2	27	2	86	14	191	16
Total		667	792	667	792	461	1044	461	1044	1128	1836
Combined Total		1459		1459		1505		1505		2964	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	178	-	-	-	99	-	-	-	-	-
P.H.F.		0.767				0.651					
PM Peak	-	-	01:45	-	-	-	04:45	-	-	-	-
Vol.	-	-	140	-	-	-	187	-	-	-	-
P.H.F.			0.814				0.866				
Percentage		45.7%	54.3%			30.6%	69.4%				
ADT/AADT		ADT 2,964		AADT 2,964							

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City of Redlands
Grove Street
B/ Highland Avenue - Citrus Avenue
24 Hour Directional Volume Count

RED056
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	12			0	6				
12:15		0	8			3	6				
12:30		0	12			0	11				
12:45		0	5	0	37	0	10	3	33	3	70
01:00		0	7			0	11				
01:15		0	9			0	9				
01:30		1	7			1	4				
01:45		1	7	2	30	0	7	1	31	3	61
02:00		0	4			0	10				
02:15		0	13			0	13				
02:30		0	17			0	10				
02:45		0	10	0	44	0	14	0	47	0	91
03:00		1	6			0	12				
03:15		0	6			0	17				
03:30		1	14			0	12				
03:45		0	6	2	32	0	12	0	53	2	85
04:00		3	6			0	9				
04:15		1	12			1	17				
04:30		0	5			0	14				
04:45		1	**10**	5	33	0	**20**	1	60	6	93
05:00		0	**15**			0	**18**				
05:15		0	**17**			1	**15**				
05:30		1	**8**			0	**19**				
05:45		3	10	4	50	0	13	1	65	5	115
06:00		3	8			1	14				
06:15		0	16			2	12				
06:30		6	6			2	10				
06:45		7	5	16	35	10	10	15	46	31	81
07:00		8	5			4	11				
07:15		10	5			4	12				
07:30		8	4			5	8				
07:45		**25**	6	51	20	8	1	21	32	72	52
08:00		**11**	2			3	8				
08:15		**9**	8			11	8				
08:30		**13**	3			5	8				
08:45		17	9	50	22	3	7	22	31	72	53
09:00		4	5			4	7				
09:15		10	4			6	4				
09:30		10	1			7	3				
09:45		10	1	34	11	7	2	24	16	58	27
10:00		8	1			5	1				
10:15		4	4			**12**	0				
10:30		10	1			**11**	1				
10:45		4	0	26	6	**9**	3	37	5	63	11
11:00		15	1			**9**	0				
11:15		12	3			5	0				
11:30		4	0			10	0				
11:45		7	1	38	5	10	1	34	1	72	6
Total		228	325	228	325	159	420	159	420	387	745
Combined Total		553		553		579		579		1132	
AM Peak	-	07:45	-	-	-	10:15	-	-	-	-	-
Vol.	-	58	-	-	-	41	-	-	-	-	-
P.H.F.		0.580				0.854					
PM Peak	-	-	04:45	-	-	-	04:45	-	-	-	-
Vol.	-	-	50	-	-	-	72	-	-	-	-
P.H.F.			0.735				0.900				
Percentage		41.2%	58.8%			27.5%	72.5%				
ADT/AADT		ADT 1,132		AADT 1,132							

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City of Lake Elsinore
Grove Street
B/ Citrus Avenue - Brockton Avenue
24 Hour Directional Volume Count

RED057
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	17			1	27				
12:15		1	19			6	18				
12:30		0	30			2	23				
12:45		2	25	6	91	2	23	11	91	17	182
01:00		0	19			0	20				
01:15		1	26			2	12				
01:30		0	17			0	17				
01:45		0	20	1	82	1	12	3	61	4	143
02:00		0	19			0	25				
02:15		1	31			0	44				
02:30		0	17			0	29				
02:45		1	30	2	97	1	27	1	125	3	222
03:00		0	19			1	25				
03:15		0	23			2	**34**				
03:30		0	28			0	**18**				
03:45		0	21	0	91	1	**47**	4	124	4	215
04:00		1	23			0	**34**				
04:15		0	31			1	29				
04:30		2	20			0	21				
04:45		1	25	4	99	2	32	3	116	7	215
05:00		1	**28**			2	39				
05:15		4	**29**			1	31				
05:30		4	**26**			3	24				
05:45		6	**28**	15	111	5	34	11	128	26	239
06:00		6	21			5	24				
06:15		4	16			5	25				
06:30		8	17			7	19				
06:45		16	14	34	68	13	20	30	88	64	156
07:00		11	23			9	19				
07:15		**17**	17			13	16				
07:30		**24**	16			16	17				
07:45		**49**	10	101	66	22	15	60	67	161	133
08:00		**28**	17			13	16				
08:15		17	19			20	13				
08:30		19	11			11	13				
08:45		23	15	87	62	16	14	60	56	147	118
09:00		33	10			13	13				
09:15		29	11			11	20				
09:30		10	9			9	13				
09:45		15	9	87	39	7	16	40	62	127	101
10:00		11	8			15	5				
10:15		7	4			11	5				
10:30		16	7			19	4				
10:45		16	0	50	19	**31**	5	76	19	126	38
11:00		24	3			**19**	7				
11:15		17	4			**15**	2				
11:30		12	4			**20**	4				
11:45		18	3	71	14	15	4	69	17	140	31
Total		458	839	458	839	368	954	368	954	826	1793
Combined Total		1297		1297		1322		1322		2619	
AM Peak	-	07:15	-	-	-	10:45	-	-	-	-	-
Vol.	-	118	-	-	-	85	-	-	-	-	-
P.H.F.		0.602				0.685					
PM Peak	-	-	05:00	-	-	-	03:15	-	-	-	-
Vol.	-	-	111	-	-	-	133	-	-	-	-
P.H.F.			0.957				0.707				
Percentage		35.3%	64.7%			27.8%	72.2%				
ADT/AADT		ADT 2,619		AADT 2,619							

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City of Redlands
Highland Avenue
B/ Ford Street - Cajon Street
24 Hour Directional Volume Count

RED058
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	41			2	41				
12:15		0	41			0	42				
12:30		2	38			1	35				
12:45		4	42	7	162	0	34	3	152	10	314
01:00		1	38			1	48				
01:15		4	33			1	35				
01:30		1	30			1	52				
01:45		1	48	7	149	0	45	3	180	10	329
02:00		1	61			0	31				
02:15		1	41			1	46				
02:30		1	52			0	56				
02:45		0	40	3	194	1	**57**	2	190	5	384
03:00		0	62			2	**50**				
03:15		0	56			2	**72**				
03:30		1	60			1	**65**				
03:45		1	74	2	252	1	47	6	234	8	486
04:00		0	55			0	44				
04:15		3	63			0	43				
04:30		0	53			2	44				
04:45		1	**83**	4	254	4	48	6	179	10	433
05:00		3	**85**			5	51				
05:15		3	**87**			5	36				
05:30		3	**90**			10	37				
05:45		7	73	16	335	12	30	32	154	48	489
06:00		7	45			18	46				
06:15		5	43			17	48				
06:30		10	59			21	37				
06:45		13	37	35	184	49	21	105	152	140	336
07:00		20	32			35	26				
07:15		34	32			64	32				
07:30		**49**	35			**91**	23				
07:45		**65**	27	168	126	**77**	21	267	102	435	228
08:00		**42**	36			**63**	21				
08:15		**54**	25			**74**	18				
08:30		42	24			60	10				
08:45		31	18	169	103	49	13	246	62	415	165
09:00		26	13			32	7				
09:15		22	13			22	9				
09:30		26	11			38	9				
09:45		30	5	104	42	32	11	124	36	228	78
10:00		35	12			35	6				
10:15		31	6			32	11				
10:30		20	4			29	9				
10:45		30	5	116	27	36	5	132	31	248	58
11:00		19	8			29	4				
11:15		23	4			45	3				
11:30		31	2			32	0				
11:45		28	3	101	17	35	2	141	9	242	26
Total		732	1845	732	1845	1067	1481	1067	1481	1799	3326
Combined Total		2577		2577		2548		2548		5125	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	210	-	-	-	305	-	-	-	-	-
P.H.F.		0.808				0.838					
PM Peak	-	-	04:45	-	-	-	02:45	-	-	-	-
Vol.	-	-	345	-	-	-	244	-	-	-	-
P.H.F.			0.958				0.847				
Percentage		28.4%	71.6%			41.9%	58.1%				
ADT/AADT		ADT 5,125		AADT 5,125							

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City of Redlands
Highland Avenue
B/ Cajon Street - San Mateo Street
24 Hour Directional Volume Count

RED059
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	52			2	39				
12:15		1	43			2	48				
12:30		2	49			3	43				
12:45		5	52	11	196	1	38	8	168	19	364
01:00		3	48			2	52				
01:15		1	59			2	47				
01:30		1	55			1	36				
01:45		3	59	8	221	0	49	5	184	13	405
02:00		1	60			3	58				
02:15		3	57			2	57				
02:30		1	70			0	53				
02:45		0	84	5	271	3	**75**	8	243	13	514
03:00		0	92			2	**57**				
03:15		2	87			2	**67**				
03:30		3	71			0	**72**				
03:45		2	91	7	341	0	66	4	262	11	603
04:00		1	60			0	59				
04:15		3	53			1	62				
04:30		7	96			0	56				
04:45		7	**95**	18	304	10	37	11	214	29	518
05:00		9	**77**			3	71				
05:15		12	**107**			10	53				
05:30		16	**103**			13	51				
05:45		15	85	52	372	13	53	39	228	91	600
06:00		20	79			16	58				
06:15		23	62			31	56				
06:30		35	69			37	34				
06:45		38	44	116	254	66	43	150	191	266	445
07:00		51	40			48	35				
07:15		65	34			53	44				
07:30		**82**	30			**88**	29				
07:45		**94**	35	292	139	**91**	39	280	147	572	286
08:00		**86**	30			**87**	37				
08:15		**77**	20			**74**	21				
08:30		64	19			56	23				
08:45		62	19	289	88	57	23	274	104	563	192
09:00		52	19			38	17				
09:15		45	15			41	9				
09:30		37	15			36	18				
09:45		47	11	181	60	34	18	149	62	330	122
10:00		42	10			41	12				
10:15		28	9			25	13				
10:30		39	9			37	12				
10:45		42	6	151	34	27	9	130	46	281	80
11:00		40	11			38	5				
11:15		51	4			59	3				
11:30		56	7			49	2				
11:45		44	4	191	26	47	3	193	13	384	39
Total		1321	2306	1321	2306	1251	1862	1251	1862	2572	4168
Combined Total		3627		3627		3113		3113		6740	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	339	-	-	-	340	-	-	-	-	-
P.H.F.		0.902				0.934					
PM Peak	-	-	04:45	-	-	-	02:45	-	-	-	-
Vol.	-	-	382	-	-	-	271	-	-	-	-
P.H.F.			0.893				0.903				
Percentage		36.4%	63.6%			40.2%	59.8%				
ADT/AADT		ADT 6,740		AADT 6,740							

Counts Unlimited, Inc.

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City of Redlands
Highland Avenue
B/ San Mateo Street - Serpentine Drive
24 Hour Directional Volume Count

RED060
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	13			0	19				
12:15		2	8			0	8				
12:30		1	16			2	22				
12:45		0	13	3	50	0	12	2	61	5	111
01:00		1	7			1	11				
01:15		0	19			0	12				
01:30		1	14			0	14				
01:45		1	12	3	52	0	17	1	54	4	106
02:00		0	17			1	**23**				
02:15		0	13			2	**15**				
02:30		0	**26**			1	**20**				
02:45		0	**15**	0	71	0	**20**	4	78	4	149
03:00		0	**21**			0	21				
03:15		0	**16**			0	11				
03:30		1	17			0	19				
03:45		0	21	1	75	0	14	0	65	1	140
04:00		0	14			0	15				
04:15		1	10			0	19				
04:30		1	19			0	6				
04:45		1	24	3	67	1	17	1	57	4	124
05:00		1	14			0	12				
05:15		3	16			0	16				
05:30		1	19			2	11				
05:45		3	24	8	73	2	16	4	55	12	128
06:00		4	18			4	15				
06:15		3	12			10	22				
06:30		9	14			3	10				
06:45		9	9	25	53	14	11	31	58	56	111
07:00		8	10			15	9				
07:15		11	17			6	11				
07:30		**14**	5			**17**	8				
07:45		**19**	6	52	38	**34**	11	72	39	124	77
08:00		**10**	8			**23**	3				
08:15		**16**	4			**29**	5				
08:30		8	9			13	6				
08:45		12	4	46	25	15	6	80	20	126	45
09:00		12	4			14	2				
09:15		12	4			9	1				
09:30		11	5			7	6				
09:45		11	1	46	14	7	5	37	14	83	28
10:00		11	2			15	1				
10:15		9	0			10	2				
10:30		15	2			16	2				
10:45		14	1	49	5	8	5	49	10	98	15
11:00		17	1			10	2				
11:15		11	0			19	3				
11:30		10	0			11	0				
11:45		8	1	46	2	11	0	51	5	97	7
Total		282	525	282	525	332	516	332	516	614	1041
Combined Total		807		807		848		848		1655	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	59	-	-	-	103	-	-	-	-	-
P.H.F.		0.776				0.757					
PM Peak	-	-	02:30	-	-	-	02:00	-	-	-	-
Vol.	-	-	78	-	-	-	78	-	-	-	-
P.H.F.			0.750				0.848				
Percentage		34.9%	65.1%			39.2%	60.8%				
ADT/AADT		ADT 1,655		AADT 1,655							

Counts Unlimited, Inc.

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City of Redlands
Judson Street
B/ Citrus Avenue - Colton Avenue
24 Hour Directional Volume Count

RED061
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	57			2	62				
12:15		4	51			5	45				
12:30		7	44			2	42				
12:45		4	57	17	209	1	40	10	189	27	398
01:00		3	48			4	58				
01:15		4	55			2	44				
01:30		2	49			0	58				
01:45		4	61	13	213	1	60	7	220	20	433
02:00		2	60			0	63				
02:15		2	75			5	74				
02:30		1	60			2	52				
02:45		2	63	7	258	1	67	8	256	15	514
03:00		0	**58**			0	64				
03:15		3	**90**			1	60				
03:30		1	**103**			2	66				
03:45		5	**82**	9	333	3	56	6	246	15	579
04:00		3	57			6	63				
04:15		3	61			7	64				
04:30		0	69			4	63				
04:45		1	74	7	261	7	59	24	249	31	510
05:00		3	67			13	59				
05:15		12	63			9	59				
05:30		10	83			14	**74**				
05:45		11	71	36	284	7	**66**	43	258	79	542
06:00		22	56			20	**68**				
06:15		16	63			24	**64**				
06:30		27	49			35	52				
06:45		30	47	95	215	37	40	116	224	211	439
07:00		39	47			44	47				
07:15		46	43			59	45				
07:30		66	53			**73**	34				
07:45		**75**	56	226	199	**79**	31	255	157	481	356
08:00		**71**	39			**78**	23				
08:15		**73**	26			**82**	21				
08:30		**74**	30			70	27				
08:45		46	24	264	119	58	21	288	92	552	211
09:00		40	28			36	23				
09:15		40	24			39	28				
09:30		45	19			50	25				
09:45		50	14	175	85	56	18	181	94	356	179
10:00		46	29			36	14				
10:15		25	13			29	13				
10:30		45	18			34	11				
10:45		56	6	172	66	45	6	144	44	316	110
11:00		49	11			43	3				
11:15		39	7			39	4				
11:30		49	9			28	6				
11:45		41	6	178	33	34	3	144	16	322	49
Total		1199	2275	1199	2275	1226	2045	1226	2045	2425	4320
Combined Total		3474		3474		3271		3271		6745	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	293	-	-	-	312	-	-	-	-	-
P.H.F.		0.977				0.951					
PM Peak	-	-	03:00	-	-	-	05:30	-	-	-	-
Vol.	-	-	333	-	-	-	272	-	-	-	-
P.H.F.			0.808				0.919				
Percentage		34.5%	65.5%			37.5%	62.5%				
ADT/AADT		ADT 6,745		AADT 6,745							

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City of Redlands
Judson Street
B/ Colton Avenue - Lugonia Avenue
24 Hour Directional Volume Count

RED062
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	43			3	49				
12:15		4	38			5	48				
12:30		2	36			1	34				
12:45		3	43	10	160	2	45	11	176	21	336
01:00		3	37			7	45				
01:15		1	41			1	47				
01:30		1	48			2	46				
01:45		3	42	8	168	2	48	12	186	20	354
02:00		0	47			0	62				
02:15		1	77			1	53				
02:30		0	59			3	40				
02:45		2	51	3	234	0	58	4	213	7	447
03:00		1	**54**			0	50				
03:15		3	**71**			2	51				
03:30		2	**97**			0	72				
03:45		4	**67**	10	289	1	53	3	226	13	515
04:00		3	48			3	49				
04:15		1	56			4	55				
04:30		1	57			2	50				
04:45		2	67	7	228	4	62	13	216	20	444
05:00		4	46			9	45				
05:15		11	47			6	50				
05:30		11	64			15	**57**				
05:45		10	64	36	221	10	**61**	40	213	76	434
06:00		13	47			16	**62**				
06:15		19	65			19	**55**				
06:30		27	30			26	40				
06:45		20	47	79	189	28	45	89	202	168	391
07:00		23	37			36	44				
07:15		46	34			67	34				
07:30		55	45			**77**	33				
07:45		**60**	45	184	161	**79**	32	259	143	443	304
08:00		**58**	29			**73**	18				
08:15		**70**	25			**79**	19				
08:30		**58**	23			64	21				
08:45		29	18	215	95	43	15	259	73	474	168
09:00		27	20			26	20				
09:15		31	17			34	21				
09:30		30	13			37	19				
09:45		34	14	122	64	42	11	139	71	261	135
10:00		38	24			20	9				
10:15		23	10			31	9				
10:30		41	9			30	8				
10:45		48	6	150	49	30	5	111	31	261	80
11:00		45	6			32	3				
11:15		34	10			35	5				
11:30		46	7			32	3				
11:45		42	6	167	29	32	4	131	15	298	44
Total		991	1887	991	1887	1071	1765	1071	1765	2062	3652
Combined Total		2878		2878		2836		2836		5714	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	246	-	-	-	308	-	-	-	-	-
P.H.F.		0.879				0.975					
PM Peak	-	-	03:00	-	-	-	05:30	-	-	-	-
Vol.	-	-	289	-	-	-	235	-	-	-	-
P.H.F.			0.745				0.816				
Percentage		34.4%	65.6%			37.8%	62.2%				
ADT/AADT		ADT 5,714		AADT 5,714							

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City of Redlands
Judson Street
B/ Lugonia Avenue - Pioneer Avenue
24 Hour Directional Volume Count

RED063
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	19			1	14				
12:15		0	17			1	17				
12:30		1	19			0	11				
12:45		0	14	2	69	5	23	7	65	9	134
01:00		1	17			1	16				
01:15		0	19			3	**34**				
01:30		0	16			1	**43**				
01:45		0	**96**	1	148	0	**53**	5	146	6	294
02:00		0	**37**			0	**22**				
02:15		0	**36**			0	23				
02:30		1	**21**			0	20				
02:45		0	25	1	119	1	32	1	97	2	216
03:00		1	22			2	28				
03:15		1	37			0	35				
03:30		2	38			0	27				
03:45		1	26	5	123	0	24	2	114	7	237
04:00		1	25			2	24				
04:15		0	27			4	37				
04:30		2	36			1	34				
04:45		0	41	3	129	2	36	9	131	12	260
05:00		5	27			1	26				
05:15		10	27			4	35				
05:30		14	24			3	40				
05:45		3	18	32	96	2	42	10	143	42	239
06:00		9	30			4	30				
06:15		13	27			14	29				
06:30		13	16			13	17				
06:45		17	15	52	88	16	23	47	99	99	187
07:00		17	13			**35**	11				
07:15		**43**	14			**51**	14				
07:30		**91**	19			**69**	28				
07:45		**38**	14	189	60	**26**	12	181	65	370	125
08:00		**26**	10			18	11				
08:15		26	11			22	13				
08:30		18	8			23	12				
08:45		8	11	78	40	14	7	77	43	155	83
09:00		12	7			10	17				
09:15		10	4			20	18				
09:30		19	10			24	5				
09:45		15	3	56	24	13	4	67	44	123	68
10:00		12	3			6	4				
10:15		17	4			13	5				
10:30		17	2			15	4				
10:45		10	1	56	10	13	6	47	19	103	29
11:00		18	2			14	2				
11:15		11	4			24	1				
11:30		24	0			19	4				
11:45		22	4	75	10	18	1	75	8	150	18
Total		550	916	550	916	528	974	528	974	1078	1890
Combined Total		1466		1466		1502		1502		2968	
AM Peak	-	07:15	-	-	-	07:00	-	-	-	-	-
Vol.	-	198	-	-	-	181	-	-	-	-	-
P.H.F.		0.544				0.656					
PM Peak	-	-	01:45	-	-	-	01:15	-	-	-	-
Vol.	-	-	190	-	-	-	152	-	-	-	-
P.H.F.			0.495				0.717				
Percentage		37.5%	62.5%			35.2%	64.8%				
ADT/AADT		ADT 2,968		AADT 2,968							

Counts Unlimited, Inc.

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City of Redlands
Lugonia Avenue
B/ 1500' W/ Research Avenue - California Street
24 Hour Directional Volume Count

RED066
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	3			0	13				
12:15		0	4			0	8				
12:30		1	2			0	8				
12:45		0	8	1	17	0	11	0	40	1	57
01:00		0	9			0	9				
01:15		0	9			0	8				
01:30		1	6			0	7				
01:45		0	7	1	31	0	5	0	29	1	60
02:00		0	**9**			1	7				
02:15		0	**10**			0	9				
02:30		0	**24**			0	7				
02:45		0	**8**	0	51	0	9	1	32	1	83
03:00		1	5			1	6				
03:15		0	7			0	7				
03:30		0	6			0	**11**				
03:45		0	7	1	25	0	**6**	1	30	2	55
04:00		0	3			0	**18**				
04:15		1	6			0	**9**				
04:30		0	3			1	6				
04:45		0	3	1	15	3	10	4	43	5	58
05:00		1	6			7	7				
05:15		2	3			5	2				
05:30		2	3			6	5				
05:45		3	5	8	17	16	7	34	21	42	38
06:00		5	13			8	4				
06:15		2	2			2	3				
06:30		2	5			8	5				
06:45		6	3	15	23	6	4	24	16	39	39
07:00		5	1			5	1				
07:15		3	2			9	3				
07:30		2	2			5	2				
07:45		2	3	12	8	6	7	25	13	37	21
08:00		8	2			3	2				
08:15		3	4			2	3				
08:30		3	0			4	1				
08:45		5	1	19	7	7	1	16	7	35	14
09:00		2	2			6	2				
09:15		**9**	2			10	2				
09:30		**14**	0			4	1				
09:45		**9**	0	34	4	7	2	27	7	61	11
10:00		**6**	0			**8**	1				
10:15		9	2			**9**	0				
10:30		11	0			**10**	0				
10:45		7	0	33	2	**10**	0	37	1	70	3
11:00		8	3			4	3				
11:15		6	0			5	0				
11:30		5	0			7	0				
11:45		9	1	28	4	2	0	18	3	46	7
Total		153	204	153	204	187	242	187	242	340	446
Combined Total		357		357		429		429		786	
AM Peak	-	09:15	-	-	-	10:00	-	-	-	-	-
Vol.	-	38	-	-	-	37	-	-	-	-	-
P.H.F.		0.679				0.578					
PM Peak	-	-	02:00	-	-	-	03:30	-	-	-	-
Vol.	-	-	51	-	-	-	44	-	-	-	-
P.H.F.			0.531				0.611				
Percentage		42.9%	57.1%			43.6%	56.4%				
ADT/AADT		ADT 786		AADT 786							

Counts Unlimited, Inc.

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City of Redlands
Lugonia Avenue
B/ California Street - Alabama Street
24 Hour Directional Volume Count

RED067
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		6	48			4	**71**				
12:15		4	47			4	**55**				
12:30		3	60			2	**66**				
12:45		2	48	15	203	5	**74**	15	266	30	469
01:00		4	38			3	56				
01:15		3	44			2	62				
01:30		2	42			0	53				
01:45		1	40	10	164	4	57	9	228	19	392
02:00		2	51			3	44				
02:15		2	49			2	46				
02:30		1	57			1	51				
02:45		2	46	7	203	3	67	9	208	16	411
03:00		1	54			1	70				
03:15		4	**51**			5	58				
03:30		3	**61**			8	59				
03:45		5	**72**	13	238	5	71	19	258	32	496
04:00		3	**85**			4	63				
04:15		7	48			3	40				
04:30		6	55			13	62				
04:45		6	62	22	250	9	58	29	223	51	473
05:00		3	57			5	60				
05:15		10	61			10	48				
05:30		8	52			14	54				
05:45		9	43	30	213	24	52	53	214	83	427
06:00		2	55			22	48				
06:15		9	42			28	49				
06:30		19	36			37	38				
06:45		19	34	49	167	32	28	119	163	168	330
07:00		21	28			29	26				
07:15		25	20			41	36				
07:30		17	25			51	26				
07:45		29	21	92	94	56	23	177	111	269	205
08:00		38	20			49	18				
08:15		26	20			46	20				
08:30		32	17			38	25				
08:45		36	14	132	71	43	21	176	84	308	155
09:00		46	14			36	20				
09:15		40	7			38	14				
09:30		36	10			44	11				
09:45		51	13	173	44	43	5	161	50	334	94
10:00		42	8			45	9				
10:15		48	6			47	4				
10:30		45	8			51	12				
10:45		**56**	7	191	29	49	9	192	34	383	63
11:00		**53**	6			**46**	7				
11:15		**55**	5			**46**	3				
11:30		**46**	3			**66**	2				
11:45		46	4	200	18	**57**	2	215	14	415	32
Total		934	1694	934	1694	1174	1853	1174	1853	2108	3547
Combined Total		2628		2628		3027		3027		5655	
AM Peak	-	10:45	-	-	-	11:00	-	-	-	-	-
Vol.	-	210	-	-	-	215	-	-	-	-	-
P.H.F.		0.938				0.814					
PM Peak	-	-	03:15	-	-	-	12:00	-	-	-	-
Vol.	-	-	269	-	-	-	266	-	-	-	-
P.H.F.			0.791				0.899				
Percentage		35.5%	64.5%			38.8%	61.2%				
ADT/AADT		ADT 5,655		AADT 5,655							

Counts Unlimited, Inc.

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City of Redlands
Lugonia Avenue
B/ Alabama Street - Tennessee Street
24 Hour Directional Volume Count

RED068
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		17	129			8	152				
12:15		7	148			18	166				
12:30		15	157			7	**185**				
12:45		10	137	49	571	6	**182**	39	685	88	1256
01:00		6	147			13	**158**				
01:15		3	126			4	**187**				
01:30		10	111			6	147				
01:45		5	148	24	532	10	138	33	630	57	1162
02:00		2	139			2	160				
02:15		7	132			9	119				
02:30		7	151			6	160				
02:45		7	126	23	548	8	164	25	603	48	1151
03:00		5	139			7	188				
03:15		4	131			7	142				
03:30		5	155			11	166				
03:45		7	158	21	583	8	205	33	701	54	1284
04:00		6	163			9	155				
04:15		7	172			10	132				
04:30		2	185			17	162				
04:45		4	**201**	19	721	19	140	55	589	74	1310
05:00		6	**202**			7	119				
05:15		7	**180**			22	136				
05:30		11	**187**			24	144				
05:45		9	158	33	727	35	153	88	552	121	1279
06:00		11	157			28	147				
06:15		13	130			24	116				
06:30		11	146			49	148				
06:45		21	102	56	535	62	123	163	534	219	1069
07:00		22	103			59	104				
07:15		28	82			91	126				
07:30		35	87			90	110				
07:45		55	97	140	369	118	101	358	441	498	810
08:00		48	73			103	117				
08:15		54	80			98	92				
08:30		50	70			127	81				
08:45		70	63	222	286	91	56	419	346	641	632
09:00		79	55			75	76				
09:15		73	67			87	65				
09:30		71	39			109	53				
09:45		80	39	303	200	91	41	362	235	665	435
10:00		97	29			114	39				
10:15		109	20			120	25				
10:30		95	25			120	24				
10:45		105	15	406	89	123	20	477	108	883	197
11:00		**107**	15			**131**	18				
11:15		**119**	7			**141**	11				
11:30		**135**	15			**142**	14				
11:45		**124**	13	485	50	**177**	10	591	53	1076	103
Total		1781	5211	1781	5211	2643	5477	2643	5477	4424	10688
Combined Total		6992		6992		8120		8120		15112	
AM Peak	-	11:00	-	-	-	11:00	-	-	-	-	-
Vol.	-	485	-	-	-	591	-	-	-	-	-
P.H.F.		0.898				0.835					
PM Peak	-	-	04:45	-	-	-	00:30	-	-	-	-
Vol.	-	-	770	-	-	-	712	-	-	-	-
P.H.F.			0.953				0.952				
Percentage		25.5%	74.5%			32.5%	67.5%				
ADT/AADT		ADT 15,112		AADT 15,112							

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City of Redlands
Lugonia Avenue
B/ Tennessee Street - Texas Street
24 Hour Directional Volume Count

RED069
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		28	132			13	**145**				
12:15		15	148			15	**158**				
12:30		29	164			11	**167**				
12:45		15	176	87	620	7	**118**	46	588	133	1208
01:00		13	169			8	136				
01:15		9	177			7	152				
01:30		14	155			5	113				
01:45		16	151	52	652	7	152	27	553	79	1205
02:00		5	161			7	131				
02:15		13	189			8	133				
02:30		10	175			12	144				
02:45		8	179	36	704	9	149	36	557	72	1261
03:00		7	192			7	138				
03:15		9	200			11	152				
03:30		11	238			18	148				
03:45		10	285	37	915	15	150	51	588	88	1503
04:00		6	262			15	132				
04:15		4	245			19	140				
04:30		6	259			29	121				
04:45		12	**265**	28	1031	23	138	86	531	114	1562
05:00		8	**313**			27	108				
05:15		13	**289**			38	124				
05:30		11	**278**			44	133				
05:45		22	250	54	1130	59	126	168	491	222	1621
06:00		20	202			36	114				
06:15		30	189			48	118				
06:30		23	169			67	128				
06:45		34	135	107	695	82	116	233	476	340	1171
07:00		38	158			98	94				
07:15		60	140			116	97				
07:30		55	127			134	100				
07:45		72	134	225	559	**172**	65	520	356	745	915
08:00		74	111			**135**	82				
08:15		76	99			**136**	84				
08:30		70	95			**145**	63				
08:45		92	99	312	404	115	41	531	270	843	674
09:00		81	73			115	54				
09:15		102	92			99	46				
09:30		93	76			129	39				
09:45		109	64	385	305	122	41	465	180	850	485
10:00		110	53			109	23				
10:15		117	51			133	33				
10:30		111	50			119	23				
10:45		115	35	453	189	134	25	495	104	948	293
11:00		**131**	38			149	14				
11:15		**137**	22			124	18				
11:30		**134**	26			140	14				
11:45		**148**	24	550	110	123	6	536	52	1086	162
Total		2326	7314	2326	7314	3194	4746	3194	4746	5520	12060
Combined Total		9640		9640		7940		7940		17580	
AM Peak	-	11:00	-	-	-	07:45	-	-	-	-	-
Vol.	-	550	-	-	-	588	-	-	-	-	-
P.H.F.		0.929				0.855					
PM Peak	-	-	04:45	-	-	-	12:00	-	-	-	-
Vol.	-	-	1145	-	-	-	588	-	-	-	-
P.H.F.			0.915				0.880				
Percentage		24.1%	75.9%			40.2%	59.8%				
ADT/AADT		ADT 17,580		AADT 17,580							

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City of Redlands
Lugonia Avenue
B/ Texas Street - Orange Street
24 Hour Directional Volume Count

RED070
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		20	124			7	109				
12:15		13	143			12	133				
12:30		25	146			8	150				
12:45		11	154	69	567	5	106	32	498	101	1065
01:00		11	167			7	106				
01:15		10	167			6	131				
01:30		11	149			2	111				
01:45		12	156	44	639	6	126	21	474	65	1113
02:00		6	140			2	126				
02:15		10	183			6	122				
02:30		8	144			7	123				
02:45		4	180	28	647	7	**142**	22	513	50	1160
03:00		7	198			3	**141**				
03:15		9	198			9	**131**				
03:30		7	218			15	**149**				
03:45		11	259	34	873	14	138	41	559	75	1432
04:00		5	236			13	135				
04:15		3	228			15	125				
04:30		4	243			25	106				
04:45		6	229	18	936	21	128	74	494	92	1430
05:00		5	**292**			22	101				
05:15		14	**277**			35	111				
05:30		10	**260**			32	109				
05:45		22	**242**	51	1071	51	121	140	442	191	1513
06:00		20	212			30	104				
06:15		30	175			41	114				
06:30		23	157			61	106				
06:45		39	112	112	656	87	101	219	425	331	1081
07:00		39	136			96	90				
07:15		60	127			114	89				
07:30		72	129			**137**	86				
07:45		82	117	253	509	**194**	56	541	321	794	830
08:00		83	116			**137**	60				
08:15		86	103			**132**	67				
08:30		77	95			122	52				
08:45		91	84	337	398	96	29	487	208	824	606
09:00		74	75			103	55				
09:15		102	77			88	37				
09:30		95	67			112	33				
09:45		102	57	373	276	111	27	414	152	787	428
10:00		99	46			113	27				
10:15		113	43			112	26				
10:30		101	34			106	17				
10:45		112	30	425	153	124	23	455	93	880	246
11:00		**124**	37			121	12				
11:15		**122**	10			108	19				
11:30		**135**	23			137	11				
11:45		**135**	15	516	85	118	6	484	48	1000	133
Total		2260	6810	2260	6810	2930	4227	2930	4227	5190	11037
Combined Total		9070		9070		7157		7157		16227	
AM Peak	-	11:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	516	-	-	-	600	-	-	-	-	-
P.H.F.		0.956				0.773					
PM Peak	-	-	05:00	-	-	-	02:45	-	-	-	-
Vol.	-	-	1071	-	-	-	563	-	-	-	-
P.H.F.			0.917				0.945				
Percentage		24.9%	75.1%			40.9%	59.1%				
ADT/AADT		ADT 16,227		AADT 16,227							

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City of Redlands
Mariposa Drive
B/ Wabash Avenue - Country Club Drive
24 Hour Directional Volume Count

RED071
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	7			0	2				
12:15		1	5			0	0				
12:30		0	7			0	3				
12:45		0	10	3	29	0	4	0	9	3	38
01:00		0	6			0	4				
01:15		0	5			0	4				
01:30		0	6			1	**4**				
01:45		0	**7**	0	24	0	**4**	1	16	1	40
02:00		0	**15**			0	**6**				
02:15		0	**7**			0	**5**				
02:30		0	**8**			0	4				
02:45		0	3	0	33	0	2	0	17	0	50
03:00		1	10			0	1				
03:15		0	7			0	4				
03:30		0	6			0	4				
03:45		0	6	1	29	0	1	0	10	1	39
04:00		0	13			0	2				
04:15		0	5			0	3				
04:30		0	4			0	1				
04:45		0	7	0	29	0	2	0	8	0	37
05:00		0	16			0	2				
05:15		1	4			1	5				
05:30		1	8			0	1				
05:45		0	4	2	32	2	3	3	11	5	43
06:00		2	3			1	3				
06:15		2	8			0	1				
06:30		0	6			0	1				
06:45		1	6	5	23	5	1	6	6	11	29
07:00		3	5			3	4				
07:15		**7**	5			5	2				
07:30		**4**	2			**19**	1				
07:45		**7**	3	21	15	**9**	1	36	8	57	23
08:00		**5**	3			**8**	0				
08:15		3	4			**6**	1				
08:30		6	7			3	0				
08:45		1	2	15	16	3	0	20	1	35	17
09:00		2	4			4	1				
09:15		4	0			3	0				
09:30		3	2			5	1				
09:45		3	2	12	8	3	0	15	2	27	10
10:00		3	1			4	1				
10:15		4	1			3	1				
10:30		3	1			2	1				
10:45		5	2	15	5	4	0	13	3	28	8
11:00		3	0			5	0				
11:15		2	2			2	2				
11:30		3	2			2	0				
11:45		4	0	12	4	2	0	11	2	23	6
Total		86	247	86	247	105	93	105	93	191	340
Combined Total		333		333		198		198		531	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	23	-	-	-	42	-	-	-	-	-
P.H.F.		0.821				0.553					
PM Peak	-	-	01:45	-	-	-	01:30	-	-	-	-
Vol.	-	-	37	-	-	-	19	-	-	-	-
P.H.F.			0.617				0.792				
Percentage		25.8%	74.2%			53.0%	47.0%				
ADT/AADT		ADT 531		AADT 531							

Counts Unlimited, Inc.

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City of Redlands
Mariposa Drive
B/ Country Club Drive - Garden Street
24 Hour Directional Volume Count

RED072
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	24			0	24				
12:15		1	21			0	16				
12:30		2	26			0	11				
12:45		1	22	7	93	0	16	0	67	7	160
01:00		1	21			2	24				
01:15		0	9			1	19				
01:30		0	32			0	14				
01:45		0	29	1	91	0	**28**	3	85	4	176
02:00		0	41			0	**30**				
02:15		0	22			0	**46**				
02:30		0	21			0	**26**				
02:45		0	26	0	110	0	26	0	128	0	238
03:00		1	32			0	13				
03:15		0	34			0	34				
03:30		0	44			0	23				
03:45		0	41	1	151	0	29	0	99	1	250
04:00		0	53			1	25				
04:15		0	32			2	17				
04:30		0	38			2	30				
04:45		0	**50**	0	173	2	21	7	93	7	266
05:00		1	**47**			0	18				
05:15		5	**43**			4	23				
05:30		2	**40**			2	37				
05:45		2	34	10	164	3	22	9	100	19	264
06:00		6	35			7	23				
06:15		5	34			9	16				
06:30		2	26			8	13				
06:45		4	17	17	112	21	14	45	66	62	178
07:00		20	24			15	27				
07:15		17	24			21	13				
07:30		**29**	14			**54**	18				
07:45		**23**	19	89	81	**58**	12	148	70	237	151
08:00		**29**	12			**41**	9				
08:15		**25**	16			**36**	13				
08:30		21	14			16	4				
08:45		27	7	102	49	18	3	111	29	213	78
09:00		26	12			34	7				
09:15		24	8			25	9				
09:30		19	10			19	3				
09:45		17	5	86	35	20	4	98	23	184	58
10:00		18	8			18	5				
10:15		26	4			23	0				
10:30		19	6			21	1				
10:45		17	4	80	22	16	2	78	8	158	30
11:00		22	2			35	0				
11:15		17	2			24	1				
11:30		19	4			19	2				
11:45		21	1	79	9	22	1	100	4	179	13
Total		472	1090	472	1090	599	772	599	772	1071	1862
Combined Total		1562		1562		1371		1371		2933	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	106	-	-	-	189	-	-	-	-	-
P.H.F.		0.914				0.815					
PM Peak	-	-	04:45	-	-	-	01:45	-	-	-	-
Vol.	-	-	180	-	-	-	130	-	-	-	-
P.H.F.			0.900				0.707				
Percentage		30.2%	69.8%			43.7%	56.3%				
ADT/AADT		ADT 2,933		AADT 2,933							

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City of Redlands
Mariposa Drive
B/ Halsey Street - Dwight Street
24 Hour Directional Volume Count

RED073
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	3			0	1				
12:15		0	1			0	3				
12:30		0	1			0	0				
12:45		0	0	0	5	0	1	0	5	0	10
01:00		0	1			0	1				
01:15		0	1			0	0				
01:30		0	1			0	1				
01:45		0	1	0	4	0	1	0	3	0	7
02:00		0	1			0	1				
02:15		0	1			0	**2**				
02:30		0	3			0	**3**				
02:45		0	2	0	7	0	**2**	0	8	0	15
03:00		0	0			0	**2**				
03:15		0	0			0	0				
03:30		0	2			0	1				
03:45		0	3	0	5	0	0	0	3	0	8
04:00		0	1			0	3				
04:15		0	2			0	1				
04:30		0	2			0	0				
04:45		1	0	1	5	0	0	0	4	1	9
05:00		0	2			0	5				
05:15		0	2			0	1				
05:30		0	1			0	0				
05:45		0	**1**	0	6	1	2	1	8	1	14
06:00		0	**0**			1	0				
06:15		0	**3**			0	1				
06:30		1	**5**			0	0				
06:45		0	0	1	8	1	0	2	1	3	9
07:00		**0**	0			1	0				
07:15		**2**	1			0	2				
07:30		**1**	3			**0**	0				
07:45		**3**	1	6	5	**1**	1	2	3	8	8
08:00		0	0			**4**	0				
08:15		0	1			**1**	0				
08:30		1	0			0	0				
08:45		2	0	3	1	1	0	6	0	9	1
09:00		2	0			3	0				
09:15		1	2			0	0				
09:30		0	0			1	0				
09:45		1	0	4	2	0	0	4	0	8	2
10:00		4	0			1	0				
10:15		0	0			0	0				
10:30		0	0			1	0				
10:45		2	0	6	0	2	0	4	0	10	0
11:00		1	0			0	0				
11:15		1	0			1	0				
11:30		2	0			2	0				
11:45		0	0	4	0	0	0	3	0	7	0
Total		25	48	25	48	22	35	22	35	47	83
Combined Total		73		73		57		57		130	
AM Peak	-	07:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	6	-	-	-	6	-	-	-	-	-
P.H.F.		0.500				0.375					
PM Peak	-	-	05:45	-	-	-	02:15	-	-	-	-
Vol.	-	-	9	-	-	-	9	-	-	-	-
P.H.F.			0.450				0.750				
Percentage		34.2%	65.8%			38.6%	61.4%				
ADT/AADT		ADT 130		AADT 130							

Counts Unlimited, Inc.

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City of Redlands
Mountain View Avenue
B/ Interstate 10 - Central Avenue
24 Hour Directional Volume Count

RED074
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		28	73			12	55				
12:15		32	84			25	59				
12:30		21	88			77	59				
12:45		30	105	111	350	38	63	152	236	263	586
01:00		22	**81**			17	79				
01:15		22	**99**			28	65				
01:30		27	**117**			44	108				
01:45		25	**147**	96	444	24	80	113	332	209	776
02:00		52	74			12	70				
02:15		36	85			38	80				
02:30		47	112			27	102				
02:45		76	96	211	367	20	85	97	337	308	704
03:00		36	94			28	77				
03:15		23	102			21	67				
03:30		24	93			41	114				
03:45		32	93	115	382	33	76	123	334	238	716
04:00		25	92			28	95				
04:15		38	96			34	67				
04:30		52	100			52	90				
04:45		63	75	178	363	55	**83**	169	335	347	698
05:00		35	72			81	**87**				
05:15		47	85			36	**106**				
05:30		52	78			46	**133**				
05:45		57	92	191	327	56	60	219	386	410	713
06:00		63	62			32	110				
06:15		67	89			27	94				
06:30		112	84			34	51				
06:45		**159**	86	401	321	38	44	131	299	532	620
07:00		**136**	62			45	101				
07:15		**147**	59			48	52				
07:30		**118**	67			**66**	37				
07:45		129	28	530	216	**57**	47	216	237	746	453
08:00		94	50			**76**	20				
08:15		105	50			**53**	30				
08:30		63	40			30	36				
08:45		73	46	335	186	42	36	201	122	536	308
09:00		72	32			46	46				
09:15		62	37			41	14				
09:30		66	30			34	26				
09:45		50	41	250	140	43	29	164	115	414	255
10:00		59	56			41	33				
10:15		49	23			44	30				
10:30		58	42			50	25				
10:45		49	44	215	165	40	13	175	101	390	266
11:00		55	34			52	44				
11:15		60	49			49	17				
11:30		56	32			43	46				
11:45		55	32	226	147	64	21	208	128	434	275
Total		2859	3408	2859	3408	1968	2962	1968	2962	4827	6370
Combined Total		6267		6267		4930		4930		11197	
AM Peak	-	06:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	560	-	-	-	252	-	-	-	-	-
P.H.F.		0.881				0.829					
PM Peak	-	-	01:00	-	-	-	04:45	-	-	-	-
Vol.	-	-	444	-	-	-	409	-	-	-	-
P.H.F.			0.755				0.769				
Percentage		45.6%	54.4%			39.9%	60.1%				
ADT/AADT		ADT 11,197		AADT 11,197							

Counts Unlimited, Inc.

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City of Redlands
New York Street
B/ Colton Avenue - Lugonia Avenue
24 Hour Directional Volume Count

RED075
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	51			2	38				
12:15		4	41			1	47				
12:30		2	41			3	44				
12:45		2	42	13	175	2	47	8	176	21	351
01:00		1	47			1	**42**				
01:15		1	43			1	**44**				
01:30		1	54			2	**55**				
01:45		1	44	4	188	0	**49**	4	190	8	378
02:00		1	44			0	35				
02:15		1	44			1	46				
02:30		1	53			3	38				
02:45		0	56	3	197	0	45	4	164	7	361
03:00		3	37			0	35				
03:15		1	45			4	38				
03:30		2	46			3	33				
03:45		2	37	8	165	6	51	13	157	21	322
04:00		1	42			3	43				
04:15		2	41			6	56				
04:30		3	58			3	38				
04:45		6	37	12	178	8	37	20	174	32	352
05:00		0	**51**			4	39				
05:15		1	**51**			4	45				
05:30		6	**56**			5	51				
05:45		5	**51**	12	209	3	36	16	171	28	380
06:00		7	46			1	36				
06:15		4	36			6	33				
06:30		7	40			6	33				
06:45		11	35	29	157	29	28	42	130	71	287
07:00		10	32			26	33				
07:15		26	29			29	35				
07:30		21	19			21	24				
07:45		19	15	76	95	20	15	96	107	172	202
08:00		15	24			29	20				
08:15		33	23			37	20				
08:30		23	20			31	12				
08:45		30	10	101	77	28	9	125	61	226	138
09:00		39	12			35	12				
09:15		27	8			23	7				
09:30		21	13			23	15				
09:45		32	13	119	46	21	5	102	39	221	85
10:00		27	9			30	8				
10:15		29	5			26	8				
10:30		33	4			40	4				
10:45		**47**	4	136	22	36	3	132	23	268	45
11:00		**40**	11			**25**	4				
11:15		**44**	10			**38**	1				
11:30		**46**	1			**40**	6				
11:45		43	2	173	24	**38**	2	141	13	314	37
Total		686	1533	686	1533	703	1405	703	1405	1389	2938
Combined Total		2219		2219		2108		2108		4327	
AM Peak	-	10:45	-	-	-	11:00	-	-	-	-	-
Vol.	-	177	-	-	-	141	-	-	-	-	-
P.H.F.		0.941				0.881					
PM Peak	-	-	05:00	-	-	-	01:00	-	-	-	-
Vol.	-	-	209	-	-	-	190	-	-	-	-
P.H.F.			0.901				0.864				
Percentage		30.9%	69.1%			33.3%	66.7%				
ADT/AADT		ADT 4,327		AADT 4,327							

Counts Unlimited, Inc.

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City of Redlands
Olive Avenue
B/ Citrus Avenue - San Mateo Street
24 Hour Directional Volume Count

RED076
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	27			2	30				
12:15		3	41			4	40				
12:30		2	46			5	41				
12:45		0	41	8	155	2	33	13	144	21	299
01:00		1	43			0	26				
01:15		1	39			4	31				
01:30		1	36			0	33				
01:45		4	32	7	150	0	38	4	128	11	278
02:00		0	29			1	42				
02:15		0	**49**			0	42				
02:30		3	**34**			0	34				
02:45		0	**45**	3	157	0	30	1	148	4	305
03:00		1	**44**			1	36				
03:15		1	35			1	48				
03:30		1	41			0	40				
03:45		0	33	3	153	0	27	2	151	5	304
04:00		2	31			0	34				
04:15		1	32			0	30				
04:30		1	36			2	38				
04:45		0	33	4	132	1	**34**	3	136	7	268
05:00		3	38			4	**44**				
05:15		1	42			9	**46**				
05:30		6	38			6	**44**				
05:45		7	29	17	147	6	32	25	166	42	313
06:00		6	22			3	38				
06:15		8	23			4	25				
06:30		16	17			10	28				
06:45		26	22	56	84	18	21	35	112	91	196
07:00		13	24			17	17				
07:15		20	18			23	26				
07:30		35	22			**36**	16				
07:45		31	15	99	79	**50**	14	126	73	225	152
08:00		**50**	23			**61**	19				
08:15		**63**	17			**48**	11				
08:30		**41**	17			33	15				
08:45		**32**	18	186	75	22	13	164	58	350	133
09:00		21	15			39	14				
09:15		28	6			28	6				
09:30		28	5			27	7				
09:45		28	6	105	32	28	2	122	29	227	61
10:00		19	11			22	3				
10:15		32	3			21	6				
10:30		25	5			25	5				
10:45		28	2	104	21	29	2	97	16	201	37
11:00		30	1			22	4				
11:15		31	4			26	4				
11:30		35	3			34	1				
11:45		33	2	129	10	24	3	106	12	235	22
Total		721	1195	721	1195	698	1173	698	1173	1419	2368
Combined Total		1916		1916		1871		1871		3787	
AM Peak	-	08:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	186	-	-	-	195	-	-	-	-	-
P.H.F.		0.738				0.799					
PM Peak	-	-	02:15	-	-	-	04:45	-	-	-	-
Vol.	-	-	172	-	-	-	168	-	-	-	-
P.H.F.			0.878				0.913				
Percentage		37.6%	62.4%			37.3%	62.7%				
ADT/AADT		ADT 3,787		AADT 3,787							

Counts Unlimited, Inc.

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City of Redlands
Olive Avenue
B/ San Mateo Street - Terracina Boulevard
24 Hour Directional Volume Count

RED077
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	26			7	32				
12:15		1	16			2	28				
12:30		1	24			1	37				
12:45		2	32	5	98	0	34	10	131	15	229
01:00		0	**47**			1	25				
01:15		1	**39**			4	38				
01:30		0	**52**			4	44				
01:45		0	**81**	1	219	1	2	10	109	11	328
02:00		5	38			3	48				
02:15		2	34			1	49				
02:30		1	30			0	33				
02:45		0	42	8	144	1	**54**	5	184	13	328
03:00		1	43			0	**37**				
03:15		1	65			1	**71**				
03:30		0	39			0	**61**				
03:45		2	38	4	185	1	40	2	209	6	394
04:00		0	48			3	45				
04:15		2	51			1	45				
04:30		5	42			3	45				
04:45		5	36	12	177	0	36	7	171	19	348
05:00		5	46			2	40				
05:15		11	30			6	42				
05:30		8	47			5	39				
05:45		4	39	28	162	6	37	19	158	47	320
06:00		2	41			7	32				
06:15		12	36			9	33				
06:30		22	21			17	43				
06:45		25	26	61	124	30	27	63	135	124	259
07:00		27	26			28	31				
07:15		34	18			24	27				
07:30		**38**	23			**51**	29				
07:45		**39**	19	138	86	**57**	22	160	109	298	195
08:00		**67**	13			**74**	17				
08:15		**49**	9			**51**	26				
08:30		30	12			40	23				
08:45		24	9	170	43	28	16	193	82	363	125
09:00		26	6			27	19				
09:15		26	6			26	9				
09:30		26	5			29	12				
09:45		48	5	126	22	30	6	112	46	238	68
10:00		27	2			34	7				
10:15		38	5			28	1				
10:30		27	2			38	4				
10:45		34	4	126	13	40	7	140	19	266	32
11:00		28	7			42	7				
11:15		32	3			46	1				
11:30		31	7			40	5				
11:45		33	1	124	18	30	4	158	17	282	35
Total		803	1291	803	1291	879	1370	879	1370	1682	2661
Combined Total		2094		2094		2249		2249		4343	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	193	-	-	-	233	-	-	-	-	-
P.H.F.		0.720				0.787					
PM Peak	-	-	01:00	-	-	-	02:45	-	-	-	-
Vol.	-	-	219	-	-	-	223	-	-	-	-
P.H.F.			0.676				0.785				
Percentage		38.3%	61.7%			39.1%	60.9%				
ADT/AADT		ADT 4,343		AADT 4,343							

Counts Unlimited, Inc.

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City of Redlands
Orange Street
B/ Lugonia Avenue - Pioneer Avenue
24 Hour Directional Volume Count

RED078
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		6	91			19	84				
12:15		6	92			9	76				
12:30		11	90			10	94				
12:45		7	78	30	351	11	90	49	344	79	695
01:00		18	125			11	119				
01:15		3	112			12	94				
01:30		4	119			5	64				
01:45		8	108	33	464	4	81	32	358	65	822
02:00		5	105			4	103				
02:15		5	123			7	136				
02:30		6	98			9	114				
02:45		3	119	19	445	6	97	26	450	45	895
03:00		3	131			5	130				
03:15		4	138			9	104				
03:30		15	112			8	117				
03:45		10	**137**	32	518	12	117	34	468	66	986
04:00		6	**147**			12	**138**				
04:15		7	**132**			15	**116**				
04:30		22	**138**			18	**125**				
04:45		15	132	50	549	20	**152**	65	531	115	1080
05:00		18	124			12	123				
05:15		12	131			21	99				
05:30		16	121			24	108				
05:45		25	113	71	489	28	133	85	463	156	952
06:00		29	131			34	112				
06:15		32	87			37	85				
06:30		40	101			44	97				
06:45		45	106	146	425	69	90	184	384	330	809
07:00		45	95			75	90				
07:15		68	97			104	74				
07:30		72	92			**114**	64				
07:45		77	92	262	376	**134**	61	427	289	689	665
08:00		**118**	77			**94**	65				
08:15		**104**	71			**127**	56				
08:30		**92**	68			86	44				
08:45		**83**	61	397	277	87	47	394	212	791	489
09:00		57	64			73	47				
09:15		64	43			59	50				
09:30		76	46			77	30				
09:45		71	39	268	192	76	38	285	165	553	357
10:00		71	49			55	34				
10:15		70	30			88	42				
10:30		76	35			83	32				
10:45		78	17	295	131	58	22	284	130	579	261
11:00		84	27			71	19				
11:15		68	15			88	20				
11:30		91	18			82	14				
11:45		96	18	339	78	86	13	327	66	666	144
Total		1942	4295	1942	4295	2192	3860	2192	3860	4134	8155
Combined Total		6237		6237		6052		6052		12289	
AM Peak	-	08:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	397	-	-	-	469	-	-	-	-	-
P.H.F.		0.841				0.875					
PM Peak	-	-	03:45	-	-	-	04:00	-	-	-	-
Vol.	-	-	554	-	-	-	531	-	-	-	-
P.H.F.			0.942				0.873				
Percentage		31.1%	68.9%			36.2%	63.8%				
ADT/AADT		ADT 12,289		AADT 12,289							

Counts Unlimited, Inc.

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City of Redlands
Orange Street
B/ Pioneer Avenue - Hubbard Court
24 Hour Directional Volume Count

RED079
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	100			24	79				
12:15		12	113			14	84				
12:30		18	105			14	100				
12:45		12	98	46	416	18	103	70	366	116	782
01:00		18	109			16	128				
01:15		3	124			15	92				
01:30		4	144			5	78				
01:45		11	104	36	481	8	126	44	424	80	905
02:00		11	129			9	134				
02:15		10	163			14	163				
02:30		3	155			12	142				
02:45		6	120	30	567	4	182	39	621	69	1188
03:00		4	157			7	239				
03:15		10	**261**			14	207				
03:30		18	**327**			13	224				
03:45		13	**306**	45	1051	12	161	46	831	91	1882
04:00		12	**203**			12	185				
04:15		3	207			16	188				
04:30		11	246			14	168				
04:45		23	205	49	861	29	218	71	759	120	1620
05:00		26	205			26	**190**				
05:15		26	221			29	**214**				
05:30		34	177			46	**240**				
05:45		19	202	105	805	36	**250**	137	894	242	1699
06:00		50	138			27	149				
06:15		45	153			49	133				
06:30		76	157			38	110				
06:45		79	115	250	563	78	125	192	517	442	1080
07:00		77	137			101	90				
07:15		112	128			156	80				
07:30		**157**	110			**211**	99				
07:45		**182**	95	528	470	**319**	85	787	354	1315	824
08:00		**209**	138			**264**	58				
08:15		**215**	118			**165**	73				
08:30		111	81			112	54				
08:45		99	66	634	403	102	56	643	241	1277	644
09:00		68	64			89	66				
09:15		65	55			93	68				
09:30		70	61			76	44				
09:45		81	39	284	219	82	48	340	226	624	445
10:00		61	51			70	39				
10:15		80	56			77	32				
10:30		82	23			87	31				
10:45		89	23	312	153	80	21	314	123	626	276
11:00		85	30			72	38				
11:15		70	17			79	32				
11:30		94	25			82	20				
11:45		94	15	343	87	95	17	328	107	671	194
Total		2662	6076	2662	6076	3011	5463	3011	5463	5673	11539
Combined Total		8738		8738		8474		8474		17212	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	763	-	-	-	959	-	-	-	-	-
P.H.F.		0.887				0.752					
PM Peak	-	-	03:15	-	-	-	05:00	-	-	-	-
Vol.	-	-	1097	-	-	-	894	-	-	-	-
P.H.F.			0.839				0.894				
Percentage		30.5%	69.5%			35.5%	64.5%				
ADT/AADT		ADT 17,212		AADT 17,212							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Redlands
Orange Street
B/ Hubbard Court - City Limits
24 Hour Directional Volume Count

RED080
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		15	118			10	78				
12:15		8	106			10	98				
12:30		8	83			8	112				
12:45		10	92	41	399	4	87	32	375	73	774
01:00		6	117			9	84				
01:15		9	100			10	96				
01:30		11	86			5	102				
01:45		9	132	35	435	15	115	39	397	74	832
02:00		8	132			3	120				
02:15		10	166			11	133				
02:30		3	152			7	149				
02:45		4	159	25	609	6	188	27	590	52	1199
03:00		7	155			7	238				
03:15		8	**264**			18	248				
03:30		13	**296**			17	240				
03:45		16	**219**	44	934	12	184	54	910	98	1844
04:00		4	**264**			4	245				
04:15		6	226			11	159				
04:30		24	204			11	166				
04:45		19	223	53	917	24	225	50	795	103	1712
05:00		17	260			21	**231**				
05:15		22	286			23	**270**				
05:30		24	226			30	**262**				
05:45		34	221	97	993	38	**234**	112	997	209	1990
06:00		40	180			24	133				
06:15		38	144			40	128				
06:30		93	130			58	105				
06:45		112	128	283	582	84	104	206	470	489	1052
07:00		79	112			102	90				
07:15		140	99			**154**	81				
07:30		**157**	111			**239**	91				
07:45		**191**	98	567	420	**328**	78	823	340	1390	760
08:00		**201**	113			**246**	68				
08:15		**213**	101			133	70				
08:30		134	77			97	52				
08:45		96	83	644	374	101	50	577	240	1221	614
09:00		64	80			94	67				
09:15		91	58			75	85				
09:30		70	54			69	53				
09:45		69	35	294	227	66	48	304	253	598	480
10:00		71	44			72	43				
10:15		92	42			77	26				
10:30		74	33			81	29				
10:45		77	28	314	147	83	27	313	125	627	272
11:00		86	33			67	35				
11:15		100	17			73	40				
11:30		90	21			78	17				
11:45		91	5	367	76	91	17	309	109	676	185
Total		2764	6113	2764	6113	2846	5601	2846	5601	5610	11714
Combined Total		8877		8877		8447		8447		17324	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	762	-	-	-	967	-	-	-	-	-
P.H.F.		0.894				0.737					
PM Peak	-	-	03:15	-	-	-	05:00	-	-	-	-
Vol.	-	-	1043	-	-	-	997	-	-	-	-
P.H.F.			0.881				0.923				
Percentage		31.1%	68.9%			33.7%	66.3%				
ADT/AADT		ADT 17,324		AADT 17,324							

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City of Redlands
Orange Tree Lane
B/ California Sreet - Nevada Street
24 Hour Directional Volume Count

RED081
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	39			2	45				
12:15		2	36			2	48				
12:30		5	29			2	34				
12:45		6	32	15	136	2	47	8	174	23	310
01:00		3	**38**			3	39				
01:15		4	**42**			0	49				
01:30		3	**44**			5	44				
01:45		2	**37**	12	161	0	49	8	181	20	342
02:00		3	20			1	57				
02:15		2	25			2	37				
02:30		4	32			4	50				
02:45		1	29	10	106	0	42	7	186	17	292
03:00		1	32			2	43				
03:15		8	34			1	38				
03:30		3	38			3	77				
03:45		9	39	21	143	0	46	6	204	27	347
04:00		6	26			10	53				
04:15		4	31			0	**55**				
04:30		7	37			4	**63**				
04:45		9	26	26	120	3	**60**	17	231	43	351
05:00		7	35			10	**88**				
05:15		16	26			4	50				
05:30		14	28			12	45				
05:45		21	25	58	114	5	30	31	213	89	327
06:00		18	30			12	57				
06:15		17	25			7	32				
06:30		16	8			12	30				
06:45		21	15	72	78	12	15	43	134	115	212
07:00		17	17			18	14				
07:15		23	23			20	26				
07:30		35	12			22	16				
07:45		43	15	118	67	37	8	97	64	215	131
08:00		41	12			33	6				
08:15		26	11			31	11				
08:30		**35**	5			34	15				
08:45		**42**	7	144	35	29	7	127	39	271	74
09:00		**43**	3			38	6				
09:15		**36**	7			27	6				
09:30		33	3			24	14				
09:45		30	7	142	20	33	6	122	32	264	52
10:00		24	7			23	4				
10:15		27	5			31	2				
10:30		25	5			37	4				
10:45		31	5	107	22	29	3	120	13	227	35
11:00		21	1			**39**	8				
11:15		34	0			**35**	1				
11:30		18	5			**36**	6				
11:45		43	5	116	11	**41**	2	151	17	267	28
Total		841	1013	841	1013	737	1488	737	1488	1578	2501
Combined Total		1854		1854		2225		2225		4079	
AM Peak	-	08:30	-	-	-	11:00	-	-	-	-	-
Vol.	-	156	-	-	-	151	-	-	-	-	-
P.H.F.		0.907				0.921					
PM Peak	-	-	01:00	-	-	-	04:15	-	-	-	-
Vol.	-	-	161	-	-	-	266	-	-	-	-
P.H.F.			0.915				0.756				
Percentage		45.4%	54.6%			33.1%	66.9%				
ADT/AADT		ADT 4,079		AADT 4,079							

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City of Redlands
Orange Tree Lane
B/ Nevada Street - Alabama Street
24 Hour Directional Volume Count

RED082
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	41			1	39				
12:15		3	38			1	34				
12:30		1	36			3	32				
12:45		1	32	7	147	0	**47**	5	152	12	299
01:00		3	46			1	**43**				
01:15		1	36			1	**40**				
01:30		0	30			1	**38**				
01:45		0	29	4	141	2	33	5	154	9	295
02:00		0	30			0	30				
02:15		2	34			2	36				
02:30		0	36			1	29				
02:45		0	31	2	131	0	26	3	121	5	252
03:00		0	28			1	18				
03:15		2	31			1	31				
03:30		1	46			3	31				
03:45		3	36	6	141	5	30	10	110	16	251
04:00		1	27			4	26				
04:15		0	**43**			1	28				
04:30		1	**47**			3	29				
04:45		3	**31**	5	148	7	27	15	110	20	258
05:00		2	**66**			6	28				
05:15		6	42			5	13				
05:30		2	29			7	18				
05:45		1	25	11	162	15	16	33	75	44	237
06:00		6	21			11	21				
06:15		2	26			12	14				
06:30		10	10			19	17				
06:45		11	13	29	70	23	7	65	59	94	129
07:00		13	17			26	12				
07:15		9	12			33	15				
07:30		12	17			**42**	14				
07:45		15	11	49	57	**56**	8	157	49	206	106
08:00		23	5			**50**	9				
08:15		15	14			**54**	9				
08:30		26	2			35	5				
08:45		24	5	88	26	43	6	182	29	270	55
09:00		29	5			43	3				
09:15		19	4			23	7				
09:30		28	3			24	4				
09:45		25	4	101	16	33	10	123	24	224	40
10:00		22	6			20	3				
10:15		**31**	2			30	7				
10:30		**27**	7			22	3				
10:45		**30**	1	110	16	22	2	94	15	204	31
11:00		**26**	5			37	1				
11:15		21	2			26	0				
11:30		19	1			30	2				
11:45		35	5	101	13	30	1	123	4	224	17
Total		513	1068	513	1068	815	902	815	902	1328	1970
Combined Total		1581		1581		1717		1717		3298	
AM Peak	-	10:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	114	-	-	-	202	-	-	-	-	-
P.H.F.		0.919				0.902					
PM Peak	-	-	04:15	-	-	-	00:45	-	-	-	-
Vol.	-	-	187	-	-	-	168	-	-	-	-
P.H.F.			0.708				0.894				
Percentage		32.4%	67.6%			47.5%	52.5%				
ADT/AADT		ADT 3,298		AADT 3,298							

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City of Redlands
Pacific Street
B/ Crescent Avenue - Carob Street
24 Hour Directional Volume Count

RED083
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	2			0	6				
12:15		0	1			0	3				
12:30		0	**5**			0	6				
12:45		0	**2**	0	10	0	1	0	16	0	26
01:00		0	**5**			0	2				
01:15		0	**3**			0	4				
01:30		0	4			0	2				
01:45		0	3	0	15	0	0	0	8	0	23
02:00		0	3			0	2				
02:15		0	4			0	1				
02:30		0	1			0	3				
02:45		0	2	0	10	0	5	0	11	0	21
03:00		2	2			0	3				
03:15		0	1			0	5				
03:30		0	0			0	5				
03:45		0	1	2	4	0	2	0	15	2	19
04:00		0	4			0	5				
04:15		0	3			0	3				
04:30		0	2			0	**6**				
04:45		0	1	0	10	0	**4**	0	18	0	28
05:00		2	5			0	**5**				
05:15		0	4			0	**5**				
05:30		1	1			0	3				
05:45		1	2	4	12	0	6	0	19	4	31
06:00		1	1			0	3				
06:15		2	2			1	2				
06:30		1	3			0	4				
06:45		1	3	5	9	1	3	2	12	7	21
07:00		1	1			2	7				
07:15		**4**	3			2	1				
07:30		**4**	1			2	1				
07:45		**5**	1	14	6	2	1	8	10	22	16
08:00		**6**	1			1	1				
08:15		2	2			**3**	1				
08:30		2	1			**5**	1				
08:45		1	0	11	4	**2**	3	11	6	22	10
09:00		3	0			**5**	1				
09:15		2	0			3	1				
09:30		3	2			1	3				
09:45		2	0	10	2	4	0	13	5	23	7
10:00		6	1			3	2				
10:15		2	1			3	1				
10:30		4	0			5	0				
10:45		1	0	13	2	2	0	13	3	26	5
11:00		2	0			0	0				
11:15		5	0			1	0				
11:30		2	1			2	0				
11:45		2	0	11	1	4	0	7	0	18	1
Total		70	85	70	85	54	123	54	123	124	208
Combined Total		155		155		177		177		332	
AM Peak	-	07:15	-	-	-	08:15	-	-	-	-	-
Vol.	-	19	-	-	-	15	-	-	-	-	-
P.H.F.		0.792				0.750					
PM Peak	-	-	00:30	-	-	-	04:30	-	-	-	-
Vol.	-	-	15	-	-	-	20	-	-	-	-
P.H.F.			0.750				0.833				
Percentage		45.2%	54.8%			30.5%	69.5%				
ADT/AADT		ADT 332		AADT 332							

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City of Redlands
Pacific Street
B/ Carob Street - Ridge Street
24 Hour Directional Volume Count

RED084
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	2			0	**2**				
12:15		0	**3**			0	**5**				
12:30		0	**9**			0	**4**				
12:45		0	**2**	0	16	0	**0**	0	11	0	27
01:00		0	**3**			0	1				
01:15		0	2			0	1				
01:30		1	2			0	3				
01:45		0	4	1	11	0	0	0	5	1	16
02:00		0	5			0	3				
02:15		0	1			0	2				
02:30		0	1			0	3				
02:45		0	0	0	7	0	2	0	10	0	17
03:00		1	1			1	1				
03:15		0	2			0	1				
03:30		0	0			0	4				
03:45		0	3	1	6	0	2	1	8	2	14
04:00		0	1			0	1				
04:15		0	3			0	3				
04:30		0	0			0	0				
04:45		0	2	0	6	0	1	0	5	0	11
05:00		0	1			0	3				
05:15		0	0			0	3				
05:30		0	2			1	3				
05:45		2	1	2	4	2	1	3	10	5	14
06:00		0	1			1	3				
06:15		0	1			0	2				
06:30		0	3			0	2				
06:45		2	1	2	6	2	2	3	9	5	15
07:00		0	1			3	2				
07:15		**5**	0			3	1				
07:30		**4**	1			0	1				
07:45		**1**	3	10	5	1	0	7	4	17	9
08:00		**3**	1			0	1				
08:15		1	0			1	0				
08:30		1	0			4	1				
08:45		1	0	6	1	2	2	7	4	13	5
09:00		2	0			2	0				
09:15		0	1			0	0				
09:30		1	1			**3**	2				
09:45		1	0	4	2	**2**	0	7	2	11	4
10:00		3	1			**3**	1				
10:15		1	0			**2**	1				
10:30		2	0			3	0				
10:45		1	0	7	1	0	0	8	2	15	3
11:00		2	0			0	0				
11:15		1	1			2	0				
11:30		4	0			1	0				
11:45		0	0	7	1	2	0	5	0	12	1
Total		40	66	40	66	41	70	41	70	81	136
Combined Total		106		106		111		111		217	
AM Peak	-	07:15	-	-	-	09:30	-	-	-	-	-
Vol.	-	13	-	-	-	10	-	-	-	-	-
P.H.F.		0.650				0.625					
PM Peak	-	-	00:15	-	-	-	12:00	-	-	-	-
Vol.	-	-	17	-	-	-	11	-	-	-	-
P.H.F.			0.472				0.550				
Percentage		37.7%	62.3%			36.9%	63.1%				
ADT/AADT		ADT 217		AADT 217							

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City of Redlands
Palm Avenue
B/ Serpentine Drive - San Mateo Street
24 Hour Directional Volume Count

RED085
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	13			0	10				
12:15		0	7			0	8				
12:30		1	3			1	11				
12:45		1	5	2	28	0	11	1	40	3	68
01:00		0	7			0	17				
01:15		0	9			0	9				
01:30		0	7			0	2				
01:45		0	8	0	31	0	8	0	36	0	67
02:00		0	9			0	21				
02:15		0	11			0	8				
02:30		0	8			1	8				
02:45		0	5	0	33	0	**14**	1	51	1	84
03:00		0	10			1	**9**				
03:15		1	11			1	**18**				
03:30		0	12			0	**13**				
03:45		0	11	1	44	0	8	2	48	3	92
04:00		1	16			0	9				
04:15		0	10			1	8				
04:30		0	8			0	3				
04:45		1	**13**	2	47	0	5	1	25	3	72
05:00		1	**11**			2	10				
05:15		2	**17**			0	4				
05:30		2	**15**			2	12				
05:45		0	10	5	53	4	9	8	35	13	88
06:00		2	12			5	7				
06:15		3	14			8	7				
06:30		2	11			3	7				
06:45		5	4	12	41	5	7	21	28	33	69
07:00		11	8			10	3				
07:15		12	6			9	6				
07:30		6	3			**24**	2				
07:45		8	3	37	20	**38**	3	81	14	118	34
08:00		**12**	2			**25**	3				
08:15		**13**	2			**24**	5				
08:30		**11**	4			19	5				
08:45		**11**	2	47	10	13	3	81	16	128	26
09:00		6	2			11	2				
09:15		7	0			4	4				
09:30		8	3			6	4				
09:45		8	0	29	5	6	2	27	12	56	17
10:00		10	3			9	2				
10:15		3	0			5	0				
10:30		5	0			7	1				
10:45		5	0	23	3	7	1	28	4	51	7
11:00		7	0			6	0				
11:15		11	0			11	0				
11:30		10	0			4	1				
11:45		7	0	35	0	11	2	32	3	67	3
Total		193	315	193	315	283	312	283	312	476	627
Combined Total		508		508		595		595		1103	
AM Peak	-	08:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	47	-	-	-	111	-	-	-	-	-
P.H.F.		0.904				0.730					
PM Peak	-	-	04:45	-	-	-	02:45	-	-	-	-
Vol.	-	-	56	-	-	-	54	-	-	-	-
P.H.F.			0.824				0.750				
Percentage		38.0%	62.0%			47.6%	52.4%				
ADT/AADT		ADT 1,103		AADT 1,103							

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City of Redlands
Palm Avenue
B/ San Mateo Street - Ford Street
24 Hour Directional Volume Count

RED086
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	43			0	38				
12:15		3	44			1	27				
12:30		1	40			3	43				
12:45		0	35	5	162	0	31	4	139	9	301
01:00		0	47			1	34				
01:15		0	31			0	26				
01:30		1	29			1	30				
01:45		0	66	1	173	0	32	2	122	3	295
02:00		1	37			0	69				
02:15		0	42			1	52				
02:30		0	35			0	38				
02:45		1	49	2	163	1	46	2	205	4	368
03:00		2	33			1	39				
03:15		2	**46**			1	54				
03:30		0	**54**			2	48				
03:45		2	**44**	6	177	2	47	6	188	12	365
04:00		2	**41**			1	53				
04:15		0	41			1	53				
04:30		1	42			2	**54**				
04:45		3	43	6	167	4	**48**	8	208	14	375
05:00		4	36			3	**59**				
05:15		1	48			9	**67**				
05:30		6	28			5	47				
05:45		8	44	19	156	10	38	27	211	46	367
06:00		9	43			4	39				
06:15		12	35			7	45				
06:30		19	37			14	33				
06:45		30	29	70	144	14	38	39	155	109	299
07:00		28	35			24	24				
07:15		47	39			37	27				
07:30		**54**	27			**62**	14				
07:45		**63**	13	192	114	**89**	13	212	78	404	192
08:00		**37**	15			**56**	9				
08:15		**56**	22			**48**	9				
08:30		36	13			42	12				
08:45		37	21	166	71	31	11	177	41	343	112
09:00		29	16			29	5				
09:15		31	13			27	5				
09:30		35	5			26	5				
09:45		29	5	124	39	27	4	109	19	233	58
10:00		36	9			24	3				
10:15		29	4			39	6				
10:30		34	3			15	3				
10:45		28	8	127	24	29	1	107	13	234	37
11:00		24	3			27	3				
11:15		36	2			31	1				
11:30		25	1			37	2				
11:45		40	2	125	8	31	0	126	6	251	14
Total		843	1398	843	1398	819	1385	819	1385	1662	2783
Combined Total		2241		2241		2204		2204		4445	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	210	-	-	-	255	-	-	-	-	-
P.H.F.		0.833				0.716					
PM Peak	-	-	03:15	-	-	-	04:30	-	-	-	-
Vol.	-	-	185	-	-	-	228	-	-	-	-
P.H.F.			0.856				0.851				
Percentage		37.6%	62.4%			37.2%	62.8%				
ADT/AADT		ADT 4,445		AADT 4,445							

Counts Unlimited, Inc.

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City of Redlands
Palmetto Avenue
B/ Nevada Street - California Street
24 Hour Directional Volume Count

RED087
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	16			6	11				
12:15		1	17			1	7				
12:30		1	25			1	19				
12:45		2	17	8	75	2	28	10	65	18	140
01:00		6	15			2	22				
01:15		1	9			0	17				
01:30		9	39			1	36				
01:45		1	47	17	110	3	22	6	97	23	207
02:00		7	21			0	**29**				
02:15		2	22			4	**21**				
02:30		4	40			12	**28**				
02:45		5	22	18	105	7	**32**	23	110	41	215
03:00		2	21			0	9				
03:15		4	30			1	13				
03:30		6	31			12	23				
03:45		7	28	19	110	25	24	38	69	57	179
04:00		2	18			8	12				
04:15		8	23			3	18				
04:30		12	**36**			24	23				
04:45		23	**36**	45	113	33	14	68	67	113	180
05:00		6	**36**			17	20				
05:15		7	**28**			4	13				
05:30		15	27			10	18				
05:45		20	14	48	105	25	7	56	58	104	163
06:00		9	13			11	10				
06:15		7	8			3	4				
06:30		11	13			12	12				
06:45		12	7	39	41	15	10	41	36	80	77
07:00		13	8			13	6				
07:15		11	10			18	7				
07:30		21	9			**23**	10				
07:45		15	8	60	35	**34**	6	88	29	148	64
08:00		13	8			**26**	6				
08:15		7	5			**20**	6				
08:30		11	5			18	8				
08:45		14	7	45	25	27	6	91	26	136	51
09:00		13	4			13	3				
09:15		15	3			7	8				
09:30		13	5			13	6				
09:45		6	5	47	17	17	6	50	23	97	40
10:00		18	5			7	5				
10:15		11	3			14	30				
10:30		14	5			16	7				
10:45		14	8	57	21	13	10	50	52	107	73
11:00		**17**	6			11	7				
11:15		**18**	2			10	15				
11:30		**21**	4			15	5				
11:45		**15**	4	71	16	9	3	45	30	116	46
Total		474	773	474	773	566	662	566	662	1040	1435
Combined Total		1247		1247		1228		1228		2475	
AM Peak	-	11:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	71	-	-	-	103	-	-	-	-	-
P.H.F.		0.845				0.757					
PM Peak	-	-	04:30	-	-	-	02:00	-	-	-	-
Vol.	-	-	136	-	-	-	110	-	-	-	-
P.H.F.			0.944				0.859				
Percentage		38.0%	62.0%			46.1%	53.9%				
ADT/AADT		ADT 2,475		AADT 2,475							

Counts Unlimited, Inc.

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City of Redlands
Palmetto Avenue
B/ California Street - Marigold Avenue
24 Hour Directional Volume Count

RED088
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	11			1	9				
12:15		0	12			0	9				
12:30		1	21			1	13				
12:45		2	17	5	61	0	24	2	55	7	116
01:00		1	12			0	9				
01:15		0	**16**			0	**11**				
01:30		3	**37**			5	**28**				
01:45		0	**40**	4	105	0	**18**	5	66	9	171
02:00		1	**21**			1	**16**				
02:15		1	15			2	11				
02:30		4	17			3	15				
02:45		5	12	11	65	3	14	9	56	20	121
03:00		1	9			2	5				
03:15		4	17			2	7				
03:30		2	11			9	22				
03:45		7	7	14	44	17	10	30	44	44	88
04:00		3	18			10	5				
04:15		7	8			3	15				
04:30		3	17			**23**	10				
04:45		7	14	20	57	**35**	12	71	42	91	99
05:00		8	9			**31**	8				
05:15		8	5			**18**	4				
05:30		8	12			14	6				
05:45		7	8	31	34	18	5	81	23	112	57
06:00		9	5			19	5				
06:15		3	3			4	4				
06:30		7	9			9	7				
06:45		3	1	22	18	8	2	40	18	62	36
07:00		8	5			8	4				
07:15		3	4			11	4				
07:30		11	3			18	0				
07:45		7	2	29	14	11	3	48	11	77	25
08:00		6	4			10	1				
08:15		5	0			9	2				
08:30		**14**	1			15	3				
08:45		**11**	1	36	6	13	0	47	6	83	12
09:00		**13**	4			3	1				
09:15		**9**	0			13	2				
09:30		9	3			13	2				
09:45		5	2	36	9	8	1	37	6	73	15
10:00		5	3			4	0				
10:15		11	1			10	2				
10:30		16	3			10	3				
10:45		5	2	37	9	9	1	33	6	70	15
11:00		11	2			10	0				
11:15		8	0			9	1				
11:30		10	1			8	2				
11:45		10	0	39	3	7	2	34	5	73	8
Total		284	425	284	425	437	338	437	338	721	763
Combined Total		709		709		775		775		1484	
AM Peak	-	08:30	-	-	-	04:30	-	-	-	-	-
Vol.	-	47	-	-	-	107	-	-	-	-	-
P.H.F.		0.839				0.764					
PM Peak	-	-	01:15	-	-	-	01:15	-	-	-	-
Vol.	-	-	114	-	-	-	73	-	-	-	-
P.H.F.			0.713				0.652				
Percentage		40.1%	59.9%			56.4%	43.6%				
ADT/AADT		ADT 1,484		AADT 1,484							

Counts Unlimited, Inc.

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City of Redlands
Palo Alto Drive
B/ Country Club Drive - Mirasol Drive
24 Hour Directional Volume Count

RED089
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	8			0	7				
12:15		0	11			0	5				
12:30		0	6			0	11				
12:45		0	4	0	29	0	5	0	28	0	57
01:00		1	17			0	9				
01:15		0	**10**			1	3				
01:30		0	**13**			0	**12**				
01:45		0	**15**	1	55	0	**11**	1	35	2	90
02:00		1	**29**			0	**35**				
02:15		0	4			0	**20**				
02:30		0	11			0	12				
02:45		0	12	1	56	0	11	0	78	1	134
03:00		0	15			0	16				
03:15		0	11			0	9				
03:30		0	9			1	11				
03:45		0	8	0	43	0	8	1	44	1	87
04:00		0	10			1	5				
04:15		0	8			1	10				
04:30		0	12			1	8				
04:45		0	14	0	44	0	7	3	30	3	74
05:00		0	14			1	12				
05:15		0	14			0	8				
05:30		0	21			1	13				
05:45		2	18	2	67	2	7	4	40	6	107
06:00		2	12			4	15				
06:15		2	12			3	3				
06:30		1	6			3	12				
06:45		3	6	8	36	9	3	19	33	27	69
07:00		3	6			4	5				
07:15		**8**	6			8	0				
07:30		**15**	5			**26**	3				
07:45		**29**	9	55	26	**37**	4	75	12	130	38
08:00		**7**	6			**24**	0				
08:15		5	10			**18**	0				
08:30		4	6			11	1				
08:45		6	1	22	23	14	1	67	2	89	25
09:00		6	1			11	0				
09:15		7	1			12	2				
09:30		6	3			7	4				
09:45		7	1	26	6	15	2	45	8	71	14
10:00		8	1			12	0				
10:15		7	1			10	0				
10:30		4	0			8	1				
10:45		6	0	25	2	5	1	35	2	60	4
11:00		11	0			10	0				
11:15		9	1			8	1				
11:30		9	0			11	0				
11:45		5	0	34	1	10	0	39	1	73	2
Total		174	388	174	388	289	313	289	313	463	701
Combined Total		562		562		602		602		1164	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	59	-	-	-	105	-	-	-	-	-
P.H.F.		0.509				0.709					
PM Peak	-	-	01:15	-	-	-	01:30	-	-	-	-
Vol.	-	-	67	-	-	-	78	-	-	-	-
P.H.F.			0.578				0.557				
Percentage		31.0%	69.0%			48.0%	52.0%				
ADT/AADT		ADT 1,164		AADT 1,164							

Counts Unlimited, Inc.

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City of Redlands
Palo Alto Drive
B/ Mirasol Drive - Sunset Drive
24 Hour Directional Volume Count

RED090
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	10			0	7				
12:15		0	2			0	2				
12:30		0	5			0	7				
12:45		0	1	0	18	0	7	0	23	0	41
01:00		1	10			0	4				
01:15		0	7			0	3				
01:30		0	4			0	**12**				
01:45		0	6	1	27	0	**14**	0	33	1	60
02:00		3	**26**			0	**20**				
02:15		0	**8**			0	**9**				
02:30		0	**14**			0	6				
02:45		0	**12**	3	60	0	6	0	41	3	101
03:00		0	8			0	6				
03:15		0	5			0	5				
03:30		0	9			0	7				
03:45		3	4	3	26	0	4	0	22	3	48
04:00		0	14			1	5				
04:15		0	7			1	1				
04:30		0	10			2	3				
04:45		0	7	0	38	1	4	5	13	5	51
05:00		0	17			1	9				
05:15		0	9			1	5				
05:30		0	17			0	3				
05:45		1	9	1	52	3	3	5	20	6	72
06:00		2	7			4	9				
06:15		0	8			4	2				
06:30		1	3			3	7				
06:45		2	2	5	20	9	3	20	21	25	41
07:00		2	5			9	3				
07:15		3	3			**10**	2				
07:30		**5**	4			**24**	4				
07:45		**10**	1	20	13	**40**	6	83	15	103	28
08:00		**9**	7			**11**	0				
08:15		**4**	2			7	1				
08:30		3	2			5	1				
08:45		0	4	16	15	7	2	30	4	46	19
09:00		4	2			6	0				
09:15		4	0			6	2				
09:30		2	0			4	3				
09:45		5	0	15	2	7	1	23	6	38	8
10:00		6	2			5	0				
10:15		2	2			13	0				
10:30		6	0			6	0				
10:45		8	0	22	4	6	1	30	1	52	5
11:00		5	1			4	0				
11:15		4	2			2	0				
11:30		6	0			10	0				
11:45		6	0	21	3	11	0	27	0	48	3
Total		107	278	107	278	223	199	223	199	330	477
Combined Total		385		385		422		422		807	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	28	-	-	-	85	-	-	-	-	-
P.H.F.		0.700				0.531					
PM Peak	-	-	02:00	-	-	-	01:30	-	-	-	-
Vol.	-	-	60	-	-	-	55	-	-	-	-
P.H.F.			0.577				0.688				
Percentage		27.8%	72.2%			52.8%	47.2%				
ADT/AADT		ADT 807		AADT 807							

Counts Unlimited, Inc.

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City of Redlands
Pennsylvania Avenue
B/ Texas Street - Orange Street
24 Hour Directional Volume Count

RED091
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	16			2	12				
12:15		0	14			1	18				
12:30		4	17			2	27				
12:45		1	29	10	76	1	16	6	73	16	149
01:00		2	19			1	41				
01:15		1	28			1	21				
01:30		1	22			1	24				
01:45		0	22	4	91	1	17	4	103	8	194
02:00		0	27			1	28				
02:15		2	21			0	23				
02:30		2	19			1	22				
02:45		2	21	6	88	0	12	2	85	8	173
03:00		0	41			1	23				
03:15		0	27			1	**54**				
03:30		0	27			3	**59**				
03:45		1	45	1	140	1	**29**	6	165	7	305
04:00		1	36			3	**29**				
04:15		0	26			1	25				
04:30		3	33			2	30				
04:45		0	33	4	128	2	18	8	102	12	230
05:00		3	**54**			4	29				
05:15		3	**46**			7	36				
05:30		4	**40**			4	26				
05:45		6	**41**	16	181	6	28	21	119	37	300
06:00		5	39			4	21				
06:15		3	12			7	14				
06:30		3	23			19	23				
06:45		10	25	21	99	20	26	50	84	71	183
07:00		18	24			26	35				
07:15		30	21			29	16				
07:30		**31**	19			**33**	18				
07:45		**28**	26	107	90	**55**	17	143	86	250	176
08:00		**26**	13			**43**	10				
08:15		**37**	18			**43**	18				
08:30		22	14			27	11				
08:45		13	12	98	57	19	6	132	45	230	102
09:00		8	12			11	15				
09:15		12	11			14	9				
09:30		14	11			17	5				
09:45		10	12	44	46	20	13	62	42	106	88
10:00		14	12			23	12				
10:15		19	5			19	6				
10:30		10	3			10	4				
10:45		21	3	64	23	19	2	71	24	135	47
11:00		12	3			14	2				
11:15		16	3			27	7				
11:30		17	4			17	2				
11:45		10	6	55	16	16	4	74	15	129	31
Total		430	1035	430	1035	579	943	579	943	1009	1978
Combined Total		1465		1465		1522		1522		2987	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	122	-	-	-	174	-	-	-	-	-
P.H.F.		0.824				0.791					
PM Peak	-	-	05:00	-	-	-	03:15	-	-	-	-
Vol.	-	-	181	-	-	-	171	-	-	-	-
P.H.F.			0.838				0.725				
Percentage		29.4%	70.6%			38.0%	62.0%				
ADT/AADT		ADT 2,987		AADT 2,987							

Counts Unlimited, Inc.

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City of Redlands
Pennsylvania Avenue
B/ Orange Street - Church Street
24 Hour Directional Volume Count

RED092
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	13			1	10				
12:15		0	11			0	17				
12:30		3	10			2	22				
12:45		0	11	4	45	0	23	3	72	7	117
01:00		0	50			1	16				
01:15		1	21			0	12				
01:30		2	15			1	6				
01:45		3	12	6	98	0	16	2	50	8	148
02:00		0	13			0	17				
02:15		2	16			1	20				
02:30		0	20			3	18				
02:45		1	20	3	69	1	**35**	5	90	8	159
03:00		0	33			0	**41**				
03:15		1	31			2	**41**				
03:30		0	53			2	**42**				
03:45		1	27	2	144	1	19	5	143	7	287
04:00		0	24			0	23				
04:15		1	26			1	20				
04:30		0	**44**			1	28				
04:45		1	**34**	2	128	2	20	4	91	6	219
05:00		1	**40**			4	24				
05:15		1	**35**			1	31				
05:30		2	37			1	25				
05:45		6	40	10	152	2	28	8	108	18	260
06:00		3	37			2	20				
06:15		3	16			7	11				
06:30		4	24			6	9				
06:45		4	12	14	89	13	23	28	63	42	152
07:00		12	24			20	15				
07:15		25	15			33	16				
07:30		**41**	20			69	15				
07:45		**30**	14	108	73	**53**	16	175	62	283	135
08:00		**32**	10			**82**	15				
08:15		**36**	11			**120**	18				
08:30		40	10			**102**	15				
08:45		9	11	117	42	17	4	321	52	438	94
09:00		12	8			8	4				
09:15		6	5			7	7				
09:30		6	2			12	3				
09:45		8	5	32	20	12	4	39	18	71	38
10:00		3	4			8	9				
10:15		10	3			6	7				
10:30		11	2			13	3				
10:45		7	5	31	14	9	3	36	22	67	36
11:00		12	4			7	4				
11:15		12	4			9	0				
11:30		10	4			11	3				
11:45		6	0	40	12	16	0	43	7	83	19
Total		369	886	369	886	669	778	669	778	1038	1664
Combined Total		1255		1255		1447		1447		2702	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	139	-	-	-	357	-	-	-	-	-
P.H.F.		0.848				0.744					
PM Peak	-	-	04:30	-	-	-	02:45	-	-	-	-
Vol.	-	-	153	-	-	-	159	-	-	-	-
P.H.F.			0.722				0.946				
Percentage		29.4%	70.6%			46.2%	53.8%				
ADT/AADT		ADT 2,702		AADT 2,702							

Counts Unlimited, Inc.

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City of Redlands
Pennsylvania Avenue
B/ Church Street - University Street
24 Hour Directional Volume Count

RED093
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	13			0	7				
12:15		1	8			1	12				
12:30		0	9			0	5				
12:45		0	8	1	38	1	9	2	33	3	71
01:00		0	9			0	7				
01:15		1	18			1	5				
01:30		0	14			1	6				
01:45		1	13	2	54	0	11	2	29	4	83
02:00		0	10			0	22				
02:15		2	12			0	12				
02:30		0	14			0	6				
02:45		1	8	3	44	0	14	0	54	3	98
03:00		0	**16**			0	**31**				
03:15		1	**46**			1	**26**				
03:30		0	**62**			1	**26**				
03:45		1	**28**	2	152	0	**17**	2	100	4	252
04:00		1	12			2	11				
04:15		0	24			1	18				
04:30		0	31			0	18				
04:45		0	22	1	89	0	13	3	60	4	149
05:00		0	35			4	14				
05:15		1	25			0	14				
05:30		1	18			6	19				
05:45		2	27	4	105	2	18	12	65	16	170
06:00		2	22			2	11				
06:15		2	14			2	14				
06:30		4	9			4	14				
06:45		4	17	12	62	9	15	17	54	29	116
07:00		7	18			8	7				
07:15		12	15			11	3				
07:30		20	14			19	12				
07:45		**14**	9	53	56	**28**	9	66	31	119	87
08:00		**21**	3			**35**	6				
08:15		**31**	9			**65**	5				
08:30		**25**	8			**36**	4				
08:45		5	12	82	32	15	4	151	19	233	51
09:00		3	15			6	2				
09:15		7	7			6	0				
09:30		10	3			4	2				
09:45		4	1	24	26	16	0	32	4	56	30
10:00		5	3			8	5				
10:15		3	3			2	4				
10:30		7	5			10	1				
10:45		7	2	22	13	6	1	26	11	48	24
11:00		10	3			2	3				
11:15		12	2			6	1				
11:30		11	1			4	2				
11:45		10	2	43	8	11	2	23	8	66	16
Total		249	679	249	679	336	468	336	468	585	1147
Combined Total		928		928		804		804		1732	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	91	-	-	-	164	-	-	-	-	-
P.H.F.		0.734				0.631					
PM Peak	-	-	03:00	-	-	-	03:00	-	-	-	-
Vol.	-	-	152	-	-	-	100	-	-	-	-
P.H.F.			0.613				0.806				
Percentage		26.8%	73.2%			41.8%	58.2%				
ADT/AADT		ADT 1,732		AADT 1,732							

Counts Unlimited, Inc.

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City of Redlands
Pennsylvania Avenue
B/ University Street - Judson Street
24 Hour Directional Volume Count

RED094
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	10			0	7				
12:15		0	19			0	6				
12:30		0	20			2	8				
12:45		1	16	1	65	0	12	2	33	3	98
01:00		1	10			0	30				
01:15		2	12			0	14				
01:30		0	5			0	7				
01:45		0	8	3	35	0	12	0	63	3	98
02:00		0	**13**			0	**20**				
02:15		2	**37**			1	**20**				
02:30		0	**48**			1	**25**				
02:45		0	**20**	2	118	0	**18**	2	83	4	201
03:00		0	11			0	12				
03:15		0	22			1	12				
03:30		1	22			0	8				
03:45		1	20	2	75	1	16	2	48	4	123
04:00		1	20			0	18				
04:15		0	20			0	7				
04:30		2	12			2	11				
04:45		0	23	3	75	0	14	2	50	5	125
05:00		1	16			0	8				
05:15		2	20			1	12				
05:30		3	11			8	12				
05:45		6	14	12	61	10	14	19	46	31	107
06:00		7	12			5	13				
06:15		24	17			12	8				
06:30		**32**	5			**27**	7				
06:45		**17**	5	80	39	**34**	10	78	38	158	77
07:00		**16**	6			**26**	8				
07:15		**28**	6			**50**	3				
07:30		18	4			14	6				
07:45		7	6	69	22	9	3	99	20	168	42
08:00		3	6			5	4				
08:15		6	7			10	2				
08:30		10	1			7	4				
08:45		5	1	24	15	8	1	30	11	54	26
09:00		4	0			4	5				
09:15		6	4			4	3				
09:30		7	1			12	2				
09:45		8	2	25	7	7	0	27	10	52	17
10:00		7	3			1	2				
10:15		8	2			5	2				
10:30		8	1			5	2				
10:45		8	0	31	6	11	0	22	6	53	12
11:00		8	0			8	0				
11:15		10	1			4	0				
11:30		3	1			8	0				
11:45		12	0	33	2	8	0	28	0	61	2
Total		285	520	285	520	311	408	311	408	596	928
Combined Total		805		805		719		719		1524	
AM Peak	-	06:30	-	-	-	06:30	-	-	-	-	-
Vol.	-	93	-	-	-	137	-	-	-	-	-
P.H.F.		0.727				0.685					
PM Peak	-	-	02:00	-	-	-	02:00	-	-	-	-
Vol.	-	-	118	-	-	-	83	-	-	-	-
P.H.F.			0.615				0.830				
Percentage		35.4%	64.6%			43.3%	56.7%				
ADT/AADT		ADT 1,524		AADT 1,524							

Counts Unlimited, Inc.

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City of Redlands
Pioneer Avenue
B/ Texas Street - Orange Street
24 Hour Directional Volume Count

RED095
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	25			0	23				
12:15		4	24			2	26				
12:30		5	31			1	39				
12:45		2	43	12	123	2	31	5	119	17	242
01:00		2	35			1	37				
01:15		2	31			0	23				
01:30		1	43			0	26				
01:45		2	42	7	151	4	31	5	117	12	268
02:00		2	28			0	62				
02:15		0	85			0	43				
02:30		3	37			2	**60**				
02:45		1	43	6	193	0	**73**	2	238	8	431
03:00		1	40			3	**104**				
03:15		1	101			2	**54**				
03:30		2	54			8	58				
03:45		5	96	9	291	12	27	25	243	34	534
04:00		6	81			7	40				
04:15		3	91			7	31				
04:30		3	96			12	43				
04:45		3	86	15	354	8	39	34	153	49	507
05:00		5	**86**			11	30				
05:15		2	**98**			7	40				
05:30		2	**125**			16	75				
05:45		3	**102**	12	411	16	57	50	202	62	613
06:00		8	82			23	45				
06:15		11	79			25	45				
06:30		8	67			25	29				
06:45		10	38	37	266	24	49	97	168	134	434
07:00		24	70			45	26				
07:15		60	39			**83**	21				
07:30		**70**	27			**114**	38				
07:45		**54**	29	208	165	**155**	16	397	101	605	266
08:00		**58**	42			**95**	25				
08:15		**116**	28			74	12				
08:30		38	18			48	15				
08:45		20	14	232	102	31	13	248	65	480	167
09:00		16	17			25	9				
09:15		28	14			40	17				
09:30		18	15			30	12				
09:45		15	7	77	53	22	7	117	45	194	98
10:00		19	15			24	5				
10:15		13	21			19	5				
10:30		15	8			28	9				
10:45		21	7	68	51	19	7	90	26	158	77
11:00		20	8			18	4				
11:15		18	1			19	7				
11:30		23	6			18	3				
11:45		30	4	91	19	27	3	82	17	173	36
Total		774	2179	774	2179	1152	1494	1152	1494	1926	3673
Combined Total		2953		2953		2646		2646		5599	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	298	-	-	-	447	-	-	-	-	-
P.H.F.		0.642				0.721					
PM Peak	-	-	05:00	-	-	-	02:30	-	-	-	-
Vol.	-	-	411	-	-	-	291	-	-	-	-
P.H.F.			0.822				0.700				
Percentage		26.2%	73.8%			43.5%	56.5%				
ADT/AADT		ADT 5,599		AADT 5,599							

Counts Unlimited, Inc.

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City of Redlands
Pioneer Avenue
B/ Orange Street - Occidental Drive
24 Hour Directional Volume Count

RED096
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	27			2	32				
12:15		1	26			3	44				
12:30		3	36			3	35				
12:45		4	32	9	121	1	28	9	139	18	260
01:00		4	36			1	31				
01:15		3	36			2	45				
01:30		0	34			0	37				
01:45		1	37	8	143	1	34	4	147	12	290
02:00		4	32			0	48				
02:15		1	41			0	35				
02:30		1	20			1	43				
02:45		4	52	10	145	2	37	3	163	13	308
03:00		1	63			2	46				
03:15		2	49			2	**57**				
03:30		2	59			4	**61**				
03:45		1	69	6	240	8	**62**	16	226	22	466
04:00		3	76			7	**47**				
04:15		4	85			3	44				
04:30		2	89			6	49				
04:45		4	94	13	344	4	44	20	184	33	528
05:00		5	81			6	61				
05:15		8	**105**			13	38				
05:30		15	**111**			15	50				
05:45		18	**118**	46	415	11	57	45	206	91	621
06:00		5	**83**			21	51				
06:15		15	67			28	52				
06:30		10	44			28	39				
06:45		21	50	51	244	46	31	123	173	174	417
07:00		34	43			37	40				
07:15		39	44			**57**	34				
07:30		**38**	35			**63**	34				
07:45		**55**	39	166	161	**87**	26	244	134	410	295
08:00		**43**	26			**61**	57				
08:15		**47**	31			50	31				
08:30		33	17			40	18				
08:45		20	16	143	90	39	23	190	129	333	219
09:00		23	22			21	16				
09:15		23	13			21	13				
09:30		28	9			34	16				
09:45		20	8	94	52	29	10	105	55	199	107
10:00		18	14			23	14				
10:15		15	10			23	8				
10:30		23	3			26	6				
10:45		26	8	82	35	32	5	104	33	186	68
11:00		23	15			29	7				
11:15		16	6			27	4				
11:30		33	4			30	5				
11:45		38	5	110	30	29	3	115	19	225	49
Total		738	2020	738	2020	978	1608	978	1608	1716	3628
Combined Total		2758		2758		2586		2586		5344	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	183	-	-	-	268	-	-	-	-	-
P.H.F.		0.832				0.770					
PM Peak	-	-	05:15	-	-	-	03:15	-	-	-	-
Vol.	-	-	417	-	-	-	227	-	-	-	-
P.H.F.			0.883				0.915				
Percentage		26.8%	73.2%			37.8%	62.2%				
ADT/AADT		ADT 5,344		AADT 5,344							

Counts Unlimited, Inc.

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City of Redlands
Pioneer Avenue
B/ Occidental Drive - Dearborn Street
24 Hour Directional Volume Count

RED097
Site Code: 105-21433

Start Time	01-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	15			3	18				
12:15		1	15			4	12				
12:30		3	17			1	15				
12:45		0	22	4	69	1	9	9	54	13	123
01:00		2	15			0	12				
01:15		2	23			0	19				
01:30		0	19			1	13				
01:45		0	31	4	88	1	18	2	62	6	150
02:00		2	22			1	37				
02:15		3	23			1	14				
02:30		0	17			0	18				
02:45		3	23	8	85	0	20	2	89	10	174
03:00		0	38			1	**28**				
03:15		3	35			0	**26**				
03:30		0	41			1	**31**				
03:45		1	36	4	150	1	**34**	3	119	7	269
04:00		2	47			0	23				
04:15		1	46			0	26				
04:30		1	54			3	28				
04:45		3	63	7	210	1	27	4	104	11	314
05:00		5	50			2	31				
05:15		4	**78**			4	22				
05:30		16	**75**			7	27				
05:45		17	**69**	42	272	10	32	23	112	65	384
06:00		6	**55**			11	22				
06:15		9	42			11	35				
06:30		13	34			17	29				
06:45		8	19	36	150	22	12	61	98	97	248
07:00		21	35			17	21				
07:15		22	29			**32**	20				
07:30		**47**	24			**32**	31				
07:45		**33**	23	123	111	**44**	14	125	86	248	197
08:00		**20**	21			**36**	30				
08:15		**29**	19			25	14				
08:30		22	18			16	14				
08:45		11	7	82	65	18	11	95	69	177	134
09:00		15	11			10	9				
09:15		15	8			11	11				
09:30		19	8			15	7				
09:45		22	5	71	32	13	5	49	32	120	64
10:00		15	8			15	7				
10:15		8	4			11	4				
10:30		19	4			12	6				
10:45		11	5	53	21	17	1	55	18	108	39
11:00		18	6			12	4				
11:15		9	7			15	0				
11:30		21	2			12	2				
11:45		19	2	67	17	18	0	57	6	124	23
Total		501	1270	501	1270	485	849	485	849	986	2119
Combined Total		1771		1771		1334		1334		3105	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	129	-	-	-	144	-	-	-	-	-
P.H.F.		0.686				0.818					
PM Peak	-	-	05:15	-	-	-	03:00	-	-	-	-
Vol.	-	-	277	-	-	-	119	-	-	-	-
P.H.F.			0.888				0.875				
Percentage		28.3%	71.7%			36.4%	63.6%				
ADT/AADT		ADT 3,105		AADT 3,105							

Counts Unlimited, Inc.

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City of Redlands
Pioneer Avenue
B/ Texas Street - Interstate 210
24 Hour Directional Volume Count

RED098
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	36			3	28				
12:15		1	21			0	16				
12:30		3	56			1	**28**				
12:45		3	62	10	175	0	**141**	4	213	14	388
01:00		2	105			0	**184**				
01:15		2	52			0	**45**				
01:30		3	42			1	27				
01:45		4	45	11	244	5	35	6	291	17	535
02:00		3	19			3	25				
02:15		0	20			4	11				
02:30		7	34			4	11				
02:45		3	26	13	99	6	14	17	61	30	160
03:00		2	37			1	17				
03:15		4	34			7	26				
03:30		5	41			11	24				
03:45		25	36	36	148	32	19	51	86	87	234
04:00		8	40			16	15				
04:15		0	45			8	15				
04:30		9	**80**			17	16				
04:45		10	**60**	27	225	23	21	64	67	91	292
05:00		5	**86**			10	20				
05:15		7	**87**			9	26				
05:30		3	72			13	20				
05:45		11	62	26	307	24	23	56	89	82	396
06:00		6	54			11	17				
06:15		4	33			24	36				
06:30		10	26			23	24				
06:45		10	33	30	146	25	23	83	100	113	246
07:00		12	20			22	13				
07:15		23	16			32	8				
07:30		**32**	8			**48**	16				
07:45		**68**	14	135	58	**67**	14	169	51	304	109
08:00		**118**	11			**62**	9				
08:15		**45**	7			**76**	12				
08:30		25	10			30	8				
08:45		17	8	205	36	26	8	194	37	399	73
09:00		25	8			15	6				
09:15		15	8			12	9				
09:30		10	6			10	8				
09:45		16	9	66	31	21	6	58	29	124	60
10:00		16	26			13	5				
10:15		13	23			19	12				
10:30		10	5			10	13				
10:45		11	4	50	58	14	7	56	37	106	95
11:00		21	6			12	4				
11:15		19	1			14	3				
11:30		15	6			14	2				
11:45		19	1	74	14	13	4	53	13	127	27
Total		683	1541	683	1541	811	1074	811	1074	1494	2615
Combined Total		2224		2224		1885		1885		4109	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	263	-	-	-	253	-	-	-	-	-
P.H.F.		0.557				0.832					
PM Peak	-	-	04:30	-	-	-	00:30	-	-	-	-
Vol.	-	-	313	-	-	-	398	-	-	-	-
P.H.F.			0.745				0.541				
Percentage		30.7%	69.3%			43.0%	57.0%				
ADT/AADT		ADT 4,109		AADT 4,109							

Counts Unlimited, Inc.

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City of Redlands
Redlands Boulevard
B/ California Street - Texas Street
24 Hour Directional Volume Count

RED099
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	87			3	76				
12:15		2	84			2	83				
12:30		8	86			4	100				
12:45		7	77	20	334	2	85	11	344	31	678
01:00		3	94			1	95				
01:15		2	96			3	76				
01:30		5	92			1	83				
01:45		3	99	13	381	1	75	6	329	19	710
02:00		3	83			6	91				
02:15		4	78			2	68				
02:30		5	101			3	81				
02:45		8	93	20	355	5	102	16	342	36	697
03:00		5	88			4	78				
03:15		2	103			0	**88**				
03:30		6	100			3	**112**				
03:45		5	111	18	402	2	**95**	9	373	27	775
04:00		3	133			5	**96**				
04:15		0	147			8	68				
04:30		3	125			2	78				
04:45		1	**110**	7	515	12	57	27	299	34	814
05:00		6	**137**			5	82				
05:15		7	**131**			6	59				
05:30		9	**153**			16	61				
05:45		8	85	30	506	23	67	50	269	80	775
06:00		8	109			19	60				
06:15		19	80			27	39				
06:30		14	81			34	50				
06:45		22	56	63	326	30	61	110	210	173	536
07:00		41	72			31	44				
07:15		44	58			53	50				
07:30		51	34			51	46				
07:45		45	50	181	214	68	41	203	181	384	395
08:00		66	46			**82**	49				
08:15		47	49			**89**	30				
08:30		61	35			**94**	37				
08:45		49	31	223	161	**81**	23	346	139	569	300
09:00		53	29			56	17				
09:15		54	27			57	16				
09:30		58	20			48	14				
09:45		70	19	235	95	66	23	227	70	462	165
10:00		67	22			91	15				
10:15		65	10			79	10				
10:30		102	12			92	11				
10:45		75	11	309	55	72	8	334	44	643	99
11:00		**88**	17			86	8				
11:15		**99**	8			66	7				
11:30		**99**	8			94	5				
11:45		**83**	3	369	36	82	5	328	25	697	61
Total		1488	3380	1488	3380	1667	2625	1667	2625	3155	6005
Combined Total		4868		4868		4292		4292		9160	
AM Peak	-	11:00	-	-	-	08:00	-	-	-	-	-
Vol.	-	369	-	-	-	346	-	-	-	-	-
P.H.F.		0.932				0.920					
PM Peak	-	-	04:45	-	-	-	03:15	-	-	-	-
Vol.	-	-	531	-	-	-	391	-	-	-	-
P.H.F.			0.868				0.873				
Percentage		30.6%	69.4%			38.8%	61.2%				
ADT/AADT		ADT 9,160		AADT 9,160							

Counts Unlimited, Inc.

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City of Redlands
Redlands Boulevard
B/ Texas Street - Eureka Street
24 Hour Directional Volume Count

RED100
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	138			9	94				
12:15		5	138			3	87				
12:30		7	139			3	98				
12:45		9	173	30	588	1	100	16	379	46	967
01:00		4	171			3	112				
01:15		6	172			6	92				
01:30		3	142			3	92				
01:45		4	152	17	637	7	95	19	391	36	1028
02:00		1	116			4	94				
02:15		7	131			5	95				
02:30		7	140			1	114				
02:45		6	147	21	534	6	115	16	418	37	952
03:00		6	174			6	93				
03:15		7	191			0	**107**				
03:30		3	168			6	**172**				
03:45		2	189	18	722	6	**106**	18	478	36	1200
04:00		4	195			5	**105**				
04:15		6	199			4	79				
04:30		5	162			4	76				
04:45		3	**184**	18	740	11	83	24	343	42	1083
05:00		10	**157**			5	94				
05:15		12	**215**			9	73				
05:30		6	**198**			18	69				
05:45		10	148	38	718	18	65	50	301	88	1019
06:00		14	139			19	68				
06:15		20	93			29	76				
06:30		21	101			35	63				
06:45		34	90	89	423	42	68	125	275	214	698
07:00		42	87			44	62				
07:15		53	77			65	53				
07:30		61	51			78	59				
07:45		87	68	243	283	**98**	54	285	228	528	511
08:00		124	62			**108**	46				
08:15		108	73			**148**	32				
08:30		79	47			**127**	49				
08:45		99	45	410	227	76	35	459	162	869	389
09:00		105	35			88	33				
09:15		88	26			80	30				
09:30		92	34			66	16				
09:45		112	20	397	115	79	23	313	102	710	217
10:00		93	17			81	17				
10:15		108	21			108	9				
10:30		127	15			87	10				
10:45		108	11	436	64	90	8	366	44	802	108
11:00		**112**	16			100	8				
11:15		**122**	12			98	9				
11:30		**142**	4			123	7				
11:45		**132**	13	508	45	110	9	431	33	939	78
Total		2225	5096	2225	5096	2122	3154	2122	3154	4347	8250
Combined Total		7321		7321		5276		5276		12597	
AM Peak	-	11:00	-	-	-	07:45	-	-	-	-	-
Vol.	-	508	-	-	-	481	-	-	-	-	-
P.H.F.		0.894				0.813					
PM Peak	-	-	04:45	-	-	-	03:15	-	-	-	-
Vol.	-	-	754	-	-	-	490	-	-	-	-
P.H.F.			0.877				0.712				
Percentage		30.4%	69.6%			40.2%	59.8%				
ADT/AADT		ADT 12,597		AADT 12,597							

Counts Unlimited, Inc.

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City of Redlands
Redlands Boulevard
B/ Eureka Street - Citrus Avenue
24 Hour Directional Volume Count

RED101
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		17	138			11	151				
12:15		7	140			7	154				
12:30		12	99			8	144				
12:45		14	134	50	511	12	153	38	602	88	1113
01:00		11	134			10	158				
01:15		12	129			6	156				
01:30		3	98			9	123				
01:45		7	139	33	500	5	133	30	570	63	1070
02:00		7	134			10	148				
02:15		6	116			4	160				
02:30		7	116			6	153				
02:45		7	147	27	513	10	160	30	621	57	1134
03:00		9	161			7	124				
03:15		1	163			5	**176**				
03:30		3	177			8	**274**				
03:45		5	152	18	653	4	**176**	24	750	42	1403
04:00		6	162			6	**169**				
04:15		7	**185**			9	148				
04:30		3	**162**			15	146				
04:45		9	**170**	25	679	14	149	44	612	69	1291
05:00		12	**188**			19	148				
05:15		11	163			23	148				
05:30		18	169			31	145				
05:45		15	152	56	672	35	95	108	536	164	1208
06:00		24	124			42	106				
06:15		16	124			43	117				
06:30		29	123			64	110				
06:45		38	120	107	491	78	85	227	418	334	909
07:00		53	132			79	108				
07:15		48	98			90	107				
07:30		53	90			138	101				
07:45		75	91	229	411	**161**	95	468	411	697	822
08:00		122	77			**181**	88				
08:15		134	74			**237**	95				
08:30		91	51			**200**	75				
08:45		95	54	442	256	141	60	759	318	1201	574
09:00		95	49			111	61				
09:15		95	47			122	56				
09:30		88	44			131	47				
09:45		102	46	380	186	130	43	494	207	874	393
10:00		85	33			147	44				
10:15		104	23			125	28				
10:30		89	22			120	33				
10:45		97	25	375	103	151	22	543	127	918	230
11:00		**120**	29			130	26				
11:15		**119**	26			153	20				
11:30		**99**	16			144	18				
11:45		**118**	15	456	86	166	22	593	86	1049	172
Total		2198	5061	2198	5061	3358	5258	3358	5258	5556	10319
Combined Total		7259		7259		8616		8616		15875	
AM Peak	-	11:00	-	-	-	07:45	-	-	-	-	-
Vol.	-	456	-	-	-	779	-	-	-	-	-
P.H.F.		0.851				0.822					
PM Peak	-	-	04:15	-	-	-	03:15	-	-	-	-
Vol.	-	-	705	-	-	-	795	-	-	-	-
P.H.F.			0.938				0.725				
Percentage		30.3%	69.7%			39.0%	61.0%				
ADT/AADT		ADT 15,875		AADT 15,875							

Counts Unlimited, Inc.

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City of Redlands
Redlands Boulevard
B/ Citrus Avenue - Highland Avenue
24 Hour Directional Volume Count

RED102
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		10	206			3	98				
12:15		13	153			6	123				
12:30		10	156			4	101				
12:45		10	162	43	677	3	101	16	423	59	1100
01:00		3	180			3	115				
01:15		2	148			3	113				
01:30		6	134			3	106				
01:45		5	179	16	641	6	110	15	444	31	1085
02:00		11	173			2	130				
02:15		6	146			7	128				
02:30		9	174			3	130				
02:45		4	146	30	639	5	107	17	495	47	1134
03:00		2	189			3	**111**				
03:15		4	163			1	**156**				
03:30		8	153			7	**164**				
03:45		3	169	17	674	3	**125**	14	556	31	1230
04:00		4	203			2	88				
04:15		6	179			11	93				
04:30		6	200			11	82				
04:45		21	176	37	758	7	97	31	360	68	1118
05:00		10	**259**			12	98				
05:15		9	**243**			11	107				
05:30		17	**213**			28	113				
05:45		16	**199**	52	914	30	97	81	415	133	1329
06:00		28	187			33	84				
06:15		31	175			51	94				
06:30		40	168			56	100				
06:45		44	135	143	665	64	84	204	362	347	1027
07:00		45	111			79	72				
07:15		40	105			128	68				
07:30		68	116			164	87				
07:45		101	82	254	414	**233**	57	604	284	858	698
08:00		85	92			**251**	80				
08:15		102	79			**257**	57				
08:30		93	89			**193**	59				
08:45		102	47	382	307	132	46	833	242	1215	549
09:00		110	51			101	39				
09:15		85	48			87	27				
09:30		92	41			96	25				
09:45		102	24	389	164	116	29	400	120	789	284
10:00		108	42			105	31				
10:15		93	23			88	14				
10:30		128	24			96	12				
10:45		113	21	442	110	110	13	399	70	841	180
11:00		**104**	18			101	14				
11:15		**141**	15			115	8				
11:30		**147**	15			120	8				
11:45		**155**	11	547	59	119	9	455	39	1002	98
Total		2352	6022	2352	6022	3069	3810	3069	3810	5421	9832
Combined Total		8374		8374		6879		6879		15253	
AM Peak	-	11:00	-	-	-	07:45	-	-	-	-	-
Vol.	-	547	-	-	-	934	-	-	-	-	-
P.H.F.		0.882				0.909					
PM Peak	-	-	05:00	-	-	-	03:00	-	-	-	-
Vol.	-	-	914	-	-	-	556	-	-	-	-
P.H.F.			0.882				0.848				
Percentage		28.1%	71.9%			44.6%	55.4%				
ADT/AADT		ADT 15,253		AADT 15,253							

Counts Unlimited, Inc.

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City of Redlands
Redlands Boulevard
B/ Highland Avenue - Ford Street
24 Hour Directional Volume Count

RED103
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	87			17	121				
12:15		4	81			8	116				
12:30		5	77			4	109				
12:45		8	77	21	322	11	110	40	456	61	778
01:00		3	84			5	124				
01:15		3	82			8	132				
01:30		2	81			4	117				
01:45		2	89	10	336	2	131	19	504	29	840
02:00		2	80			5	136				
02:15		3	75			5	133				
02:30		4	86			4	152				
02:45		7	**90**	16	331	9	156	23	577	39	908
03:00		2	**90**			4	194				
03:15		1	**113**			3	171				
03:30		3	**92**			3	201				
03:45		4	85	10	380	7	205	17	771	27	1151
04:00		3	74			5	182				
04:15		8	71			5	149				
04:30		7	81			9	**180**				
04:45		15	72	33	298	10	**182**	29	693	62	991
05:00		13	65			14	**215**				
05:15		18	85			14	**197**				
05:30		21	69			25	176				
05:45		35	75	87	294	25	180	78	768	165	1062
06:00		40	63			19	158				
06:15		62	85			39	135				
06:30		63	60			44	128				
06:45		104	66	269	274	60	115	162	536	431	810
07:00		69	54			84	127				
07:15		125	48			74	75				
07:30		147	61			101	114				
07:45		**187**	41	528	204	102	103	361	419	889	623
08:00		**203**	56			121	70				
08:15		**183**	36			84	79				
08:30		**159**	32			102	55				
08:45		122	29	667	153	89	45	396	249	1063	402
09:00		89	27			90	39				
09:15		86	22			81	35				
09:30		78	21			76	38				
09:45		76	33	329	103	80	26	327	138	656	241
10:00		78	18			101	37				
10:15		77	17			97	31				
10:30		70	12			90	24				
10:45		95	22	320	69	116	18	404	110	724	179
11:00		72	12			**104**	30				
11:15		93	11			**117**	22				
11:30		78	6			**119**	12				
11:45		69	8	312	37	**131**	9	471	73	783	110
Total		2602	2801	2602	2801	2327	5294	2327	5294	4929	8095
Combined Total		5403		5403		7621		7621		13024	
AM Peak	-	07:45	-	-	-	11:00	-	-	-	-	-
Vol.	-	732	-	-	-	471	-	-	-	-	-
P.H.F.		0.901				0.899					
PM Peak	-	-	02:45	-	-	-	04:30	-	-	-	-
Vol.	-	-	385	-	-	-	774	-	-	-	-
P.H.F.			0.852				0.900				
Percentage		48.2%	51.8%			30.5%	69.5%				
ADT/AADT		ADT 13,024		AADT 13,024							

Counts Unlimited, Inc.

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City of Redlands
Reservoir Road
B/ Ford Street - Wabash Avenue
24 Hour Directional Volume Count

RED104
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	24			0	**60**				
12:15		3	23			3	**25**				
12:30		0	11			4	**22**				
12:45		3	18	7	76	2	**16**	9	123	16	199
01:00		1	18			0	25				
01:15		0	17			7	21				
01:30		0	18			1	23				
01:45		0	11	1	64	1	23	9	92	10	156
02:00		1	15			2	21				
02:15		0	19			0	24				
02:30		0	16			2	18				
02:45		2	15	3	65	1	23	5	86	8	151
03:00		0	15			1	30				
03:15		0	28			0	32				
03:30		0	24			0	19				
03:45		0	24	0	91	0	28	1	109	1	200
04:00		1	22			2	20				
04:15		0	**31**			2	17				
04:30		2	**25**			2	18				
04:45		1	**24**	4	102	7	21	13	76	17	178
05:00		1	**28**			6	23				
05:15		0	23			1	18				
05:30		0	20			7	21				
05:45		1	21	2	92	10	28	24	90	26	182
06:00		3	26			12	24				
06:15		5	16			8	23				
06:30		7	16			17	20				
06:45		7	22	22	80	22	13	59	80	81	160
07:00		**21**	17			17	21				
07:15		**30**	18			24	10				
07:30		**45**	25			**48**	9				
07:45		**35**	13	131	73	**53**	13	142	53	273	126
08:00		17	17			**70**	13				
08:15		19	13			**48**	16				
08:30		16	12			29	7				
08:45		11	24	63	66	27	4	174	40	237	106
09:00		10	10			20	9				
09:15		13	10			22	7				
09:30		3	7			21	2				
09:45		10	9	36	36	10	2	73	20	109	56
10:00		11	7			10	4				
10:15		10	6			21	2				
10:30		16	6			20	6				
10:45		13	3	50	22	13	3	64	15	114	37
11:00		12	2			12	5				
11:15		22	5			22	3				
11:30		41	3			19	1				
11:45		30	2	105	12	36	2	89	11	194	23
Total		424	779	424	779	662	795	662	795	1086	1574
Combined Total		1203		1203		1457		1457		2660	
AM Peak	-	07:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	131	-	-	-	219	-	-	-	-	-
P.H.F.		0.728				0.782					
PM Peak	-	-	04:15	-	-	-	12:00	-	-	-	-
Vol.	-	-	108	-	-	-	123	-	-	-	-
P.H.F.			0.871				0.513				
Percentage		35.2%	64.8%			45.4%	54.6%				
ADT/AADT		ADT 2,660		AADT 2,660							

Counts Unlimited, Inc.

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City of Redlands
Rossmont Drive
S/ Valle Vista Drive
24 Hour Directional Volume Count

RED105
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	8			0	10				
12:15		1	10			0	11				
12:30		1	6			0	4				
12:45		0	3	2	27	0	8	0	33	2	60
01:00		1	7			1	8				
01:15		0	4			0	7				
01:30		0	5			1	9				
01:45		0	6	1	22	0	10	2	34	3	56
02:00		0	8			0	3				
02:15		0	5			1	6				
02:30		0	8			0	8				
02:45		0	8	0	29	0	10	1	27	1	56
03:00		0	7			0	6				
03:15		0	5			0	8				
03:30		0	4			1	10				
03:45		0	6	0	22	0	9	1	33	1	55
04:00		0	**9**			0	12				
04:15		2	**9**			0	9				
04:30		1	**7**			0	11				
04:45		0	**10**	3	35	1	**12**	1	44	4	79
05:00		0	5			0	**14**				
05:15		2	9			0	**9**				
05:30		3	2			6	**16**				
05:45		0	3	5	19	0	7	6	46	11	65
06:00		3	4			1	11				
06:15		2	5			1	6				
06:30		3	10			2	8				
06:45		9	3	17	22	5	7	9	32	26	54
07:00		8	6			4	7				
07:15		8	5			9	11				
07:30		**11**	2			3	4				
07:45		**21**	3	48	16	3	5	19	27	67	43
08:00		**17**	3			6	9				
08:15		**17**	0			6	4				
08:30		7	3			8	4				
08:45		9	0	50	6	12	7	32	24	82	30
09:00		7	4			4	4				
09:15		9	0			5	5				
09:30		10	1			6	4				
09:45		15	2	41	7	**7**	2	22	15	63	22
10:00		7	2			**9**	3				
10:15		7	0			**9**	2				
10:30		15	2			**8**	2				
10:45		6	1	35	5	5	1	31	8	66	13
11:00		6	1			3	0				
11:15		5	2			9	2				
11:30		5	0			6	1				
11:45		13	0	29	3	8	1	26	4	55	7
Total		231	213	231	213	150	327	150	327	381	540
Combined Total		444		444		477		477		921	
AM Peak	-	07:30	-	-	-	09:45	-	-	-	-	-
Vol.	-	66	-	-	-	33	-	-	-	-	-
P.H.F.		0.786				0.688					
PM Peak	-	-	04:00	-	-	-	04:45	-	-	-	-
Vol.	-	-	35	-	-	-	51	-	-	-	-
P.H.F.			0.875				0.797				
Percentage		52.0%	48.0%			31.4%	68.6%				
ADT/AADT		ADT 921		AADT 921							

Counts Unlimited, Inc.

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City of Redlands
San Bernardino Avenue
B/ Tennessee Street - Orange Street
24 Hour Directional Volume Count

RED106
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		10	77			11	89				
12:15		15	80			12	91				
12:30		7	78			13	109				
12:45		8	93	40	328	13	90	49	379	89	707
01:00		8	106			6	79				
01:15		7	74			10	99				
01:30		6	87			9	98				
01:45		4	79	25	346	6	92	31	368	56	714
02:00		2	94			14	83				
02:15		6	86			7	99				
02:30		7	91			6	97				
02:45		11	82	26	353	4	104	31	383	57	736
03:00		7	87			4	107				
03:15		5	116			6	115				
03:30		15	93			16	136				
03:45		26	84	53	380	5	**159**	31	517	84	897
04:00		28	88			8	**152**				
04:15		19	83			8	**125**				
04:30		46	81			11	**148**				
04:45		60	76	153	328	14	155	41	580	194	908
05:00		47	98			21	136				
05:15		67	100			15	140				
05:30		66	**107**			26	142				
05:45		70	**93**	250	398	29	147	91	565	341	963
06:00		76	**101**			30	133				
06:15		90	**102**			39	134				
06:30		134	97			32	137				
06:45		106	88	406	388	49	113	150	517	556	905
07:00		125	72			61	114				
07:15		135	69			59	118				
07:30		**164**	76			**73**	101				
07:45		**193**	68	617	285	**73**	112	266	445	883	730
08:00		**179**	70			**82**	78				
08:15		**151**	88			**95**	99				
08:30		87	62			61	69				
08:45		127	51	544	271	44	79	282	325	826	596
09:00		69	47			49	81				
09:15		88	51			57	84				
09:30		85	38			60	56				
09:45		88	37	330	173	66	51	232	272	562	445
10:00		98	46			65	57				
10:15		74	43			65	37				
10:30		92	23			59	29				
10:45		87	12	351	124	67	30	256	153	607	277
11:00		69	16			75	40				
11:15		71	19			74	24				
11:30		77	9			74	24				
11:45		97	8	314	52	65	24	288	112	602	164
Total		3109	3426	3109	3426	1748	4616	1748	4616	4857	8042
Combined Total		6535		6535		6364		6364		12899	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	687	-	-	-	323	-	-	-	-	-
P.H.F.		0.890				0.850					
PM Peak	-	-	05:30	-	-	-	03:45	-	-	-	-
Vol.	-	-	403	-	-	-	584	-	-	-	-
P.H.F.			0.942				0.918				
Percentage		47.6%	52.4%			27.5%	72.5%				
ADT/AADT		ADT 12,899		AADT 12,899							

Counts Unlimited, Inc.

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City of Redlands
San Bernardino Avenue
B/ Orange Street - University Street
24 Hour Directional Volume Count

RED107
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		6	61			11	58				
12:15		9	69			5	63				
12:30		7	83			3	91				
12:45		8	116	30	329	4	84	23	296	53	625
01:00		3	86			6	73				
01:15		9	88			6	57				
01:30		5	62			3	75				
01:45		6	85	23	321	4	53	19	258	42	579
02:00		6	75			1	71				
02:15		2	74			2	73				
02:30		5	87			4	83				
02:45		2	94	15	330	4	65	11	292	26	622
03:00		2	71			3	78				
03:15		5	96			6	60				
03:30		5	82			12	85				
03:45		6	124	18	373	7	74	28	297	46	670
04:00		5	108			9	81				
04:15		7	109			13	68				
04:30		4	124			30	86				
04:45		12	123	28	464	35	90	87	325	115	789
05:00		14	119			19	**97**				
05:15		11	**123**			35	**89**				
05:30		22	**154**			48	**102**				
05:45		29	**149**	76	545	54	**108**	156	396	232	941
06:00		15	**138**			70	81				
06:15		33	120			67	68				
06:30		31	99			85	82				
06:45		41	88	120	445	80	68	302	299	422	744
07:00		50	100			74	52				
07:15		51	92			100	62				
07:30		81	75			**121**	59				
07:45		**86**	97	268	364	**115**	56	410	229	678	593
08:00		**97**	59			**109**	65				
08:15		**87**	67			**101**	63				
08:30		**94**	47			78	45				
08:45		47	45	325	218	79	30	367	203	692	421
09:00		51	54			49	31				
09:15		49	49			70	28				
09:30		51	38			63	25				
09:45		51	27	202	168	66	18	248	102	450	270
10:00		51	25			59	19				
10:15		43	28			54	19				
10:30		50	19			57	12				
10:45		62	17	206	89	61	4	231	54	437	143
11:00		66	25			54	5				
11:15		51	9			59	8				
11:30		57	12			55	7				
11:45		56	21	230	67	65	7	233	27	463	94
Total		1541	3713	1541	3713	2115	2778	2115	2778	3656	6491
Combined Total		5254		5254		4893		4893		10147	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	364	-	-	-	446	-	-	-	-	-
P.H.F.		0.938				0.921					
PM Peak	-	-	05:15	-	-	-	05:00	-	-	-	-
Vol.	-	-	564	-	-	-	396	-	-	-	-
P.H.F.			0.916				0.917				
Percentage		29.3%	70.7%			43.2%	56.8%				
ADT/AADT		ADT 10,147		AADT 10,147							

Counts Unlimited, Inc.

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City of Redlands
San Bernardino Avenue
B/ University Street - Wabash Avenue
24 Hour Directional Volume Count

RED108
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		7	46			6	39				
12:15		7	40			1	53				
12:30		4	56			4	81				
12:45		5	86	23	228	0	59	11	232	34	460
01:00		1	57			1	58				
01:15		5	74			3	33				
01:30		4	53			3	46				
01:45		4	70	14	254	2	44	9	181	23	435
02:00		3	35			0	70				
02:15		2	47			3	56				
02:30		1	67			1	58				
02:45		2	62	8	211	6	49	10	233	18	444
03:00		0	59			2	46				
03:15		4	72			3	**58**				
03:30		2	71			8	**76**				
03:45		5	79	11	281	8	**57**	21	237	32	518
04:00		5	75			5	**72**				
04:15		6	86			7	39				
04:30		4	79			20	57				
04:45		8	98	23	338	18	61	50	229	73	567
05:00		12	78			8	68				
05:15		8	**89**			15	61				
05:30		17	**91**			26	66				
05:45		22	**101**	59	359	26	64	75	259	134	618
06:00		11	**98**			49	53				
06:15		28	69			26	42				
06:30		23	75			50	54				
06:45		31	51	93	293	64	43	189	192	282	485
07:00		45	56			42	26				
07:15		50	62			77	42				
07:30		**75**	46			**102**	41				
07:45		**74**	51	244	215	**99**	54	320	163	564	378
08:00		**69**	42			**98**	39				
08:15		**64**	36			**82**	20				
08:30		67	29			61	30				
08:45		39	43	239	150	50	27	291	116	530	266
09:00		32	34			30	16				
09:15		28	30			44	17				
09:30		38	22			43	21				
09:45		55	17	153	103	49	12	166	66	319	169
10:00		37	14			34	19				
10:15		38	19			39	18				
10:30		37	15			43	3				
10:45		45	11	157	59	38	3	154	43	311	102
11:00		44	16			26	3				
11:15		38	11			26	7				
11:30		38	10			31	2				
11:45		38	9	158	46	49	7	132	19	290	65
Total		1182	2537	1182	2537	1428	1970	1428	1970	2610	4507
Combined Total		3719		3719		3398		3398		7117	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	282	-	-	-	381	-	-	-	-	-
P.H.F.		0.940				0.934					
PM Peak	-	-	05:15	-	-	-	03:15	-	-	-	-
Vol.	-	-	379	-	-	-	263	-	-	-	-
P.H.F.			0.938				0.812				
Percentage		31.8%	68.2%			42.0%	58.0%				
ADT/AADT		ADT 7,117		AADT 7,117							

Counts Unlimited, Inc.

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City of Redlands
San Bernardino Avenue
B/ Mountain View Avenue - California Street
24 Hour Directional Volume Count

RED109
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		11	94			28	83				
12:15		13	103			10	81				
12:30		29	90			29	78				
12:45		11	102	64	389	16	90	83	332	147	721
01:00		13	87			5	102				
01:15		14	108			15	105				
01:30		8	118			15	153				
01:45		11	124	46	437	12	158	47	518	93	955
02:00		15	84			9	86				
02:15		6	91			7	105				
02:30		13	108			22	158				
02:45		17	112	51	395	20	126	58	475	109	870
03:00		14	121			12	94				
03:15		29	108			10	**113**				
03:30		37	164			9	**160**				
03:45		62	135	142	528	24	**127**	55	494	197	1022
04:00		24	187			17	**121**				
04:15		40	174			30	109				
04:30		73	183			32	133				
04:45		103	**166**	240	710	44	93	123	456	363	1166
05:00		49	**214**			29	99				
05:15		43	**209**			37	115				
05:30		69	**205**			38	108				
05:45		97	163	258	791	62	110	166	432	424	1223
06:00		77	176			47	91				
06:15		69	137			39	93				
06:30		68	79			68	84				
06:45		88	93	302	485	91	74	245	342	547	827
07:00		81	53			**117**	75				
07:15		**94**	71			**104**	66				
07:30		**83**	45			**107**	49				
07:45		**107**	36	365	205	**143**	62	471	252	836	457
08:00		**96**	41			108	37				
08:15		61	26			108	36				
08:30		59	25			84	29				
08:45		67	30	283	122	75	24	375	126	658	248
09:00		80	24			64	22				
09:15		83	38			55	31				
09:30		74	15			62	36				
09:45		63	19	300	96	66	31	247	120	547	216
10:00		76	28			59	27				
10:15		79	20			75	32				
10:30		65	29			70	32				
10:45		78	13	298	90	83	19	287	110	585	200
11:00		74	22			71	17				
11:15		86	22			63	20				
11:30		72	34			91	17				
11:45		86	15	318	93	85	11	310	65	628	158
Total		2667	4341	2667	4341	2467	3722	2467	3722	5134	8063
Combined Total		7008		7008		6189		6189		13197	
AM Peak	-	07:15	-	-	-	07:00	-	-	-	-	-
Vol.	-	380	-	-	-	471	-	-	-	-	-
P.H.F.		0.888				0.823					
PM Peak	-	-	04:45	-	-	-	03:15	-	-	-	-
Vol.	-	-	794	-	-	-	521	-	-	-	-
P.H.F.			0.928				0.814				
Percentage		38.1%	61.9%			39.9%	60.1%				
ADT/AADT		ADT 13,197		AADT 13,197							

Counts Unlimited, Inc.

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City of Redlands
San Mateo Street
B/ Brookside Avenue - Fern Avenue
24 Hour Directional Volume Count

RED110
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	63			1	98				
12:15		2	57			4	112				
12:30		2	61			4	136				
12:45		4	**202**	10	383	6	90	15	436	25	819
01:00		2	**113**			2	80				
01:15		2	**70**			4	73				
01:30		0	**65**			1	102				
01:45		4	53	8	301	3	111	10	366	18	667
02:00		2	103			3	98				
02:15		2	122			1	79				
02:30		3	68			0	68				
02:45		4	107	11	400	5	97	9	342	20	742
03:00		0	79			1	142				
03:15		2	87			0	92				
03:30		3	100			2	104				
03:45		2	80	7	346	4	105	7	443	14	789
04:00		6	69			0	96				
04:15		4	67			1	106				
04:30		13	60			3	**130**				
04:45		9	48	32	244	0	**123**	4	455	36	699
05:00		9	79			4	**134**				
05:15		13	81			3	**118**				
05:30		13	66			9	129				
05:45		35	61	70	287	9	117	25	498	95	785
06:00		27	60			13	119				
06:15		40	59			9	85				
06:30		45	38			23	71				
06:45		57	50	169	207	35	59	80	334	249	541
07:00		56	43			39	57				
07:15		86	43			54	50				
07:30		156	37			**108**	39				
07:45		**206**	30	504	153	**159**	60	360	206	864	359
08:00		**167**	18			**114**	52				
08:15		**179**	20			**122**	30				
08:30		**179**	26			89	43				
08:45		105	20	630	84	48	32	373	157	1003	241
09:00		73	18			50	32				
09:15		67	14			48	22				
09:30		58	19			52	21				
09:45		65	16	263	67	49	17	199	92	462	159
10:00		69	13			52	11				
10:15		71	10			45	6				
10:30		60	3			36	14				
10:45		58	10	258	36	53	14	186	45	444	81
11:00		57	6			63	8				
11:15		79	3			59	8				
11:30		79	3			69	3				
11:45		71	4	286	16	73	4	264	23	550	39
Total		2248	2524	2248	2524	1532	3397	1532	3397	3780	5921
Combined Total		4772		4772		4929		4929		9701	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	731	-	-	-	503	-	-	-	-	-
P.H.F.		0.887				0.791					
PM Peak	-	-	00:45	-	-	-	04:30	-	-	-	-
Vol.	-	-	450	-	-	-	505	-	-	-	-
P.H.F.			0.557				0.942				
Percentage		47.1%	52.9%			31.1%	68.9%				
ADT/AADT		ADT 9,701		AADT 9,701							

Counts Unlimited, Inc.

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City of Redlands
San Mateo Street
B/ Fern Avenue - Highland Avenue
24 Hour Directional Volume Count

RED111
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	39			1	69				
12:15		1	43			5	82				
12:30		1	37			3	92				
12:45		4	**139**	10	258	5	66	14	309	24	567
01:00		4	**85**			2	70				
01:15		3	**52**			3	47				
01:30		1	**47**			1	86				
01:45		2	39	10	223	2	100	8	303	18	526
02:00		4	70			2	105				
02:15		0	82			0	56				
02:30		1	55			0	57				
02:45		4	69	9	276	3	71	5	289	14	565
03:00		0	64			1	105				
03:15		1	60			1	61				
03:30		2	70			1	88				
03:45		1	50	4	244	1	89	4	343	8	587
04:00		3	49			2	85				
04:15		1	54			1	**91**				
04:30		7	47			2	**107**				
04:45		6	44	17	194	1	**95**	6	378	23	572
05:00		6	56			7	**134**				
05:15		7	58			3	90				
05:30		8	42			6	100				
05:45		15	44	36	200	4	84	20	408	56	608
06:00		15	42			11	92				
06:15		28	40			10	72				
06:30		39	32			22	58				
06:45		37	41	119	155	34	53	77	275	196	430
07:00		40	38			36	47				
07:15		62	30			62	36				
07:30		110	32			**108**	36				
07:45		**147**	23	359	123	**139**	36	345	155	704	278
08:00		**139**	20			**76**	37				
08:15		**136**	15			**80**	24				
08:30		**157**	19			83	38				
08:45		86	17	518	71	41	28	280	127	798	198
09:00		53	14			35	21				
09:15		47	10			33	26				
09:30		34	9			63	17				
09:45		41	12	175	45	36	16	167	80	342	125
10:00		46	7			37	9				
10:15		52	5			34	6				
10:30		40	2			26	6				
10:45		34	5	172	19	43	10	140	31	312	50
11:00		37	3			39	5				
11:15		56	2			47	3				
11:30		48	2			49	5				
11:45		49	3	190	10	53	3	188	16	378	26
Total		1619	1818	1619	1818	1254	2714	1254	2714	2873	4532
Combined Total		3437		3437		3968		3968		7405	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	579	-	-	-	403	-	-	-	-	-
P.H.F.		0.922				0.725					
PM Peak	-	-	00:45	-	-	-	04:15	-	-	-	-
Vol.	-	-	323	-	-	-	427	-	-	-	-
P.H.F.			0.581				0.797				
Percentage		47.1%	52.9%			31.6%	68.4%				
ADT/AADT		ADT 7,405		AADT 7,405							

Counts Unlimited, Inc.

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City of Redlands
San Timoteo Canyon Road
B/ Fern Avenue - Barton Road
24 Hour Directional Volume Count

RED112
Site Code: 105-21433

Start Time	25-Aug-21 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		10	58			15	52				
12:15		15	64			5	68				
12:30		3	67			7	59				
12:45		7	102	35	291	8	31	35	210	70	501
01:00		4	76			4	57				
01:15		2	67			0	57				
01:30		5	57			6	60				
01:45		2	64	13	264	8	55	18	229	31	493
02:00		2	**81**			3	63				
02:15		5	**85**			5	70				
02:30		5	**71**			5	91				
02:45		3	**106**	15	343	5	79	18	303	33	646
03:00		4	32			5	120				
03:15		7	84			10	73				
03:30		12	70			5	99				
03:45		6	63	29	249	3	96	23	388	52	637
04:00		13	87			7	**103**				
04:15		16	42			9	**132**				
04:30		14	87			9	**117**				
04:45		24	63	67	279	10	**104**	35	456	102	735
05:00		17	66			11	99				
05:15		30	46			17	106				
05:30		51	96			20	59				
05:45		42	82	140	290	27	70	75	334	215	624
06:00		50	84			32	55				
06:15		60	66			33	58				
06:30		75	96			51	30				
06:45		109	51	294	297	31	49	147	192	441	489
07:00		**109**	53			43	46				
07:15		**102**	68			59	38				
07:30		**118**	25			**43**	47				
07:45		**128**	31	457	177	**46**	45	191	176	648	353
08:00		106	26			**65**	38				
08:15		104	16			**64**	32				
08:30		110	19			35	30				
08:45		85	13	405	74	52	28	216	128	621	202
09:00		65	20			47	35				
09:15		70	20			41	23				
09:30		63	9			40	16				
09:45		73	12	271	61	59	22	187	96	458	157
10:00		72	24			54	5				
10:15		70	14			45	9				
10:30		73	13			36	13				
10:45		31	4	246	55	40	8	175	35	421	90
11:00		60	6			59	8				
11:15		71	9			32	7				
11:30		124	6			40	4				
11:45		70	23	325	44	67	7	198	26	523	70
Total		2297	2424	2297	2424	1318	2573	1318	2573	3615	4997
Combined Total		4721		4721		3891		3891		8612	
AM Peak	-	07:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	457	-	-	-	218	-	-	-	-	-
P.H.F.		0.893				0.838					
PM Peak	-	-	02:00	-	-	-	04:00	-	-	-	-
Vol.	-	-	343	-	-	-	456	-	-	-	-
P.H.F.			0.809				0.864				
Percentage		48.7%	51.3%			33.9%	66.1%				
ADT/AADT		ADT 8,612		AADT 8,612							

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City of Redlands
Sunset Drive
B/ Vinton Way - Alta Vista Drive
24 Hour Directional Volume Count

RED113
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	6			2	7				
12:15		1	6			1	5				
12:30		0	6			1	9				
12:45		0	7	1	25	3	4	7	25	8	50
01:00		0	11			0	7				
01:15		0	2			0	9				
01:30		0	13			1	6				
01:45		0	3	0	29	0	7	1	29	1	58
02:00		0	12			0	4				
02:15		0	7			0	13				
02:30		0	7			0	4				
02:45		1	3	1	29	1	2	1	23	2	52
03:00		1	14			0	8				
03:15		0	9			0	7				
03:30		1	6			0	8				
03:45		0	9	2	38	1	5	1	28	3	66
04:00		0	7			0	3				
04:15		1	**14**			0	8				
04:30		0	**9**			1	7				
04:45		0	**13**	1	43	0	4	1	22	2	65
05:00		3	**12**			0	**14**				
05:15		1	9			0	**8**				
05:30		0	10			0	**6**				
05:45		2	8	6	39	0	**6**	0	34	6	73
06:00		1	16			0	6				
06:15		0	3			0	12				
06:30		3	5			2	5				
06:45		7	7	11	31	6	8	8	31	19	62
07:00		1	7			7	5				
07:15		**10**	4			3	5				
07:30		**8**	4			**9**	5				
07:45		**10**	8	29	23	**9**	7	28	22	57	45
08:00		**4**	4			**8**	2				
08:15		9	2			**5**	7				
08:30		6	2			8	4				
08:45		7	3	26	11	9	7	30	20	56	31
09:00		5	5			3	2				
09:15		4	2			5	4				
09:30		2	1			9	4				
09:45		5	3	16	11	5	6	22	16	38	27
10:00		4	3			5	2				
10:15		8	3			5	2				
10:30		7	3			9	6				
10:45		7	2	26	11	4	4	23	14	49	25
11:00		6	1			5	1				
11:15		4	2			8	0				
11:30		11	8			8	3				
11:45		7	0	28	11	5	3	26	7	54	18
Total		147	301	147	301	148	271	148	271	295	572
Combined Total		448		448		419		419		867	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	32	-	-	-	31	-	-	-	-	-
P.H.F.		0.800				0.861					
PM Peak	-	-	04:15	-	-	-	05:00	-	-	-	-
Vol.	-	-	48	-	-	-	34	-	-	-	-
P.H.F.			0.857				0.607				
Percentage		32.8%	67.2%			35.3%	64.7%				
ADT/AADT		ADT 867		AADT 867							

Counts Unlimited, Inc.

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City of Redlands
Sunset Drive
B/ Alta Vista Drive - Panorama Street
24 Hour Directional Volume Count

RED114
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	4			1	4				
12:15		1	7			0	**4**				
12:30		0	5			0	**6**				
12:45		0	1	1	17	0	**4**	1	18	2	35
01:00		2	4			0	**7**				
01:15		0	3			0	3				
01:30		0	3			1	5				
01:45		1	3	3	13	0	3	1	18	4	31
02:00		0	2			1	5				
02:15		0	4			0	3				
02:30		0	2			0	0				
02:45		1	3	1	11	0	7	1	15	2	26
03:00		1	4			0	4				
03:15		0	7			0	1				
03:30		1	7			0	2				
03:45		0	3	2	21	0	2	0	9	2	30
04:00		0	10			1	1				
04:15		0	6			0	4				
04:30		0	5			0	2				
04:45		0	**7**	0	28	1	4	2	11	2	39
05:00		0	**7**			1	9				
05:15		0	**9**			0	5				
05:30		1	**16**			0	1				
05:45		0	4	1	36	0	3	1	18	2	54
06:00		1	8			1	3				
06:15		1	8			3	4				
06:30		0	9			1	2				
06:45		1	8	3	33	4	2	9	11	12	44
07:00		1	5			4	5				
07:15		3	5			3	2				
07:30		1	5			6	3				
07:45		**3**	4	8	19	1	2	14	12	22	31
08:00		**5**	5			**10**	1				
08:15		**4**	3			**9**	2				
08:30		**6**	1			**8**	3				
08:45		0	5	15	14	**2**	1	29	7	44	21
09:00		0	3			2	5				
09:15		1	5			6	2				
09:30		5	1			2	0				
09:45		2	3	8	12	2	2	12	9	20	21
10:00		4	1			5	1				
10:15		4	3			1	2				
10:30		4	3			2	0				
10:45		3	1	15	8	2	1	10	4	25	12
11:00		3	2			6	0				
11:15		6	2			3	6				
11:30		1	0			4	1				
11:45		1	0	11	4	0	1	13	8	24	12
Total		68	216	68	216	93	140	93	140	161	356
Combined Total		284		284		233		233		517	
AM Peak	-	07:45	-	-	-	08:00	-	-	-	-	-
Vol.	-	18	-	-	-	29	-	-	-	-	-
P.H.F.		0.750				0.725					
PM Peak	-	-	04:45	-	-	-	00:15	-	-	-	-
Vol.	-	-	39	-	-	-	21	-	-	-	-
P.H.F.			0.609				0.750				
Percentage		23.9%	76.1%			39.9%	60.1%				
ADT/AADT		ADT 517		AADT 517							

Counts Unlimited, Inc.

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City of Redlands
Sunset Drive
B/ Serpentine Road - Vinton Way
24 Hour Directional Volume Count

RED115
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	4			3	2				
12:15		0	8			0	4				
12:30		1	5			0	3				
12:45		0	10	2	27	0	3	3	12	5	39
01:00		0	4			0	6				
01:15		0	8			0	**9**				
01:30		0	7			0	**6**				
01:45		0	4	0	23	0	**7**	0	28	0	51
02:00		0	9			0	**9**				
02:15		0	7			0	6				
02:30		0	10			1	5				
02:45		0	9	0	35	2	5	3	25	3	60
03:00		0	6			0	8				
03:15		0	6			0	6				
03:30		0	11			0	5				
03:45		0	8	0	31	0	7	0	26	0	57
04:00		0	13			0	5				
04:15		1	6			1	5				
04:30		0	11			0	5				
04:45		0	9	1	39	0	4	1	19	2	58
05:00		0	**7**			2	8				
05:15		0	**9**			0	4				
05:30		4	**10**			1	5				
05:45		0	**17**	4	43	0	12	3	29	7	72
06:00		0	5			0	9				
06:15		1	8			3	2				
06:30		2	3			6	4				
06:45		3	8	6	24	**9**	5	18	20	24	44
07:00		2	10			**8**	4				
07:15		5	5			**7**	7				
07:30		6	5			**12**	7				
07:45		3	0	16	20	7	2	34	20	50	40
08:00		7	2			9	8				
08:15		1	2			8	1				
08:30		**8**	0			9	5				
08:45		**9**	2	25	6	1	1	27	15	52	21
09:00		**5**	2			6	6				
09:15		**5**	2			6	0				
09:30		5	1			5	0				
09:45		4	3	19	8	7	1	24	7	43	15
10:00		3	0			3	0				
10:15		3	1			2	1				
10:30		4	1			5	0				
10:45		2	0	12	2	4	0	14	1	26	3
11:00		3	0			6	0				
11:15		5	2			9	2				
11:30		5	1			2	1				
11:45		7	0	20	3	9	1	26	4	46	7
Total		105	261	105	261	153	206	153	206	258	467
Combined Total		366		366		359		359		725	
AM Peak	-	08:30	-	-	-	06:45	-	-	-	-	-
Vol.	-	27	-	-	-	36	-	-	-	-	-
P.H.F.		0.750				0.750					
PM Peak	-	-	05:00	-	-	-	01:15	-	-	-	-
Vol.	-	-	43	-	-	-	31	-	-	-	-
P.H.F.			0.632				0.861				
Percentage		28.7%	71.3%			42.6%	57.4%				
ADT/AADT		ADT 725		AADT 725							

Counts Unlimited, Inc.

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City of Redlands
Sunset Drive
B/ Panorama Street - Franklin Avenue
24 Hour Directional Volume Count

RED116
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	8			1	7				
12:15		2	8			0	8				
12:30		1	9			0	6				
12:45		0	3	3	28	0	7	1	28	4	56
01:00		0	10			1	6				
01:15		0	9			0	7				
01:30		0	5			0	9				
01:45		0	11	0	35	0	8	1	30	1	65
02:00		0	20			0	6				
02:15		1	13			0	8				
02:30		0	8			1	5				
02:45		0	12	1	53	0	11	1	30	2	83
03:00		0	13			0	2				
03:15		0	**16**			0	8				
03:30		0	**14**			0	9				
03:45		0	**17**	0	60	0	5	0	24	0	84
04:00		0	**21**			1	6				
04:15		0	9			0	**7**				
04:30		1	6			0	**7**				
04:45		2	17	3	53	1	**12**	2	32	5	85
05:00		0	18			1	**9**				
05:15		3	14			2	5				
05:30		3	16			1	7				
05:45		1	7	7	55	2	13	6	34	13	89
06:00		5	9			1	4				
06:15		6	11			1	6				
06:30		9	16			5	5				
06:45		7	8	27	44	5	5	12	20	39	64
07:00		10	7			10	8				
07:15		**15**	3			**18**	6				
07:30		**33**	9			**19**	2				
07:45		**18**	2	76	21	**7**	6	54	22	130	43
08:00		**16**	8			**13**	5				
08:15		14	1			6	6				
08:30		18	3			9	2				
08:45		7	6	55	18	6	4	34	17	89	35
09:00		12	4			5	2				
09:15		1	1			6	1				
09:30		7	1			1	2				
09:45		9	3	29	9	12	1	24	6	53	15
10:00		8	2			5	5				
10:15		6	2			3	2				
10:30		12	2			6	0				
10:45		13	2	39	8	5	1	19	8	58	16
11:00		13	4			3	0				
11:15		9	0			6	2				
11:30		11	3			8	0				
11:45		6	1	39	8	6	1	23	3	62	11
Total		279	392	279	392	177	254	177	254	456	646
Combined Total		671		671		431		431		1102	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	82	-	-	-	57	-	-	-	-	-
P.H.F.		0.621				0.750					
PM Peak	-	-	03:15	-	-	-	04:15	-	-	-	-
Vol.	-	-	68	-	-	-	35	-	-	-	-
P.H.F.			0.810				0.729				
Percentage		41.6%	58.4%			41.1%	58.9%				
ADT/AADT		ADT 1,102		AADT 1,102							

Counts Unlimited, Inc.

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City of Redlands
Sunnyside Avenue
B/ Fern Avenue - Cypress Avenue
24 Hour Directional Volume Count

RED117
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	4			0	5				
12:15		0	2			0	4				
12:30		0	2			0	5				
12:45		0	3	2	11	0	4	0	18	2	29
01:00		2	3			1	3				
01:15		0	4			0	5				
01:30		0	3			0	2				
01:45		0	3	2	13	0	8	1	18	3	31
02:00		0	8			0	3				
02:15		0	5			0	**7**				
02:30		0	1			0	**2**				
02:45		0	3	0	17	0	**11**	0	23	0	40
03:00		0	4			0	**5**				
03:15		0	**8**			0	4				
03:30		0	**4**			1	4				
03:45		1	**3**	1	19	0	4	1	17	2	36
04:00		0	**5**			0	5				
04:15		0	5			0	6				
04:30		0	4			0	5				
04:45		1	6	1	20	0	7	0	23	1	43
05:00		0	4			0	5				
05:15		0	6			0	5				
05:30		2	4			0	4				
05:45		0	3	2	17	0	4	0	18	2	35
06:00		3	3			0	8				
06:15		2	1			0	4				
06:30		3	3			2	4				
06:45		4	3	12	10	1	6	3	22	15	32
07:00		5	1			0	2				
07:15		**6**	2			2	1				
07:30		**15**	3			**3**	3				
07:45		**6**	4	32	10	**3**	1	8	7	40	17
08:00		**9**	2			**7**	2				
08:15		5	3			**7**	2				
08:30		3	2			1	1				
08:45		6	4	23	11	1	2	16	7	39	18
09:00		0	3			2	3				
09:15		5	1			2	2				
09:30		3	1			4	0				
09:45		3	3	11	8	1	0	9	5	20	13
10:00		1	0			2	1				
10:15		4	0			8	1				
10:30		6	1			2	0				
10:45		3	1	14	2	3	2	15	4	29	6
11:00		6	0			3	1				
11:15		4	2			2	1				
11:30		2	0			4	0				
11:45		3	0	15	2	2	2	11	4	26	6
Total		115	140	115	140	64	166	64	166	179	306
Combined Total		255		255		230		230		485	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	36	-	-	-	20	-	-	-	-	-
P.H.F.		0.600				0.714					
PM Peak	-	-	03:15	-	-	-	02:15	-	-	-	-
Vol.	-	-	20	-	-	-	25	-	-	-	-
P.H.F.			0.625				0.568				
Percentage		45.1%	54.9%			27.8%	72.2%				
ADT/AADT		ADT 485		AADT 485							

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City of Redlands
Sunnyside Avenue
B/ Cypress Avenue - Smiley Heights Drive
24 Hour Directional Volume Count

RED118
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	5			1	3				
12:15		0	4			0	5				
12:30		0	3			0	2				
12:45		0	3	1	15	0	1	1	11	2	26
01:00		0	2			0	3				
01:15		0	2			0	0				
01:30		0	3			0	10				
01:45		0	3	0	10	1	2	1	15	1	25
02:00		0	3			2	2				
02:15		0	4			0	2				
02:30		0	7			0	5				
02:45		0	2	0	16	0	3	2	12	2	28
03:00		0	**5**			1	3				
03:15		1	**4**			1	4				
03:30		0	**5**			0	2				
03:45		0	**7**	1	21	0	2	2	11	3	32
04:00		0	2			0	5				
04:15		0	2			0	4				
04:30		0	3			0	2				
04:45		0	3	0	10	0	**9**	0	20	0	30
05:00		1	4			0	**6**				
05:15		1	3			0	**6**				
05:30		0	5			0	**8**				
05:45		0	4	2	16	0	4	0	24	2	40
06:00		0	2			0	6				
06:15		2	8			1	5				
06:30		1	3			1	7				
06:45		0	1	3	14	0	4	2	22	5	36
07:00		1	0			1	5				
07:15		2	4			3	1				
07:30		2	5			2	3				
07:45		**7**	0	12	9	**2**	3	8	12	20	21
08:00		**8**	1			**2**	0				
08:15		**3**	1			**4**	2				
08:30		**5**	0			**4**	1				
08:45		5	1	21	3	1	4	11	7	32	10
09:00		3	2			2	2				
09:15		6	0			2	2				
09:30		5	0			1	0				
09:45		4	1	18	3	0	1	5	5	23	8
10:00		4	2			2	0				
10:15		6	0			3	4				
10:30		2	2			1	1				
10:45		2	0	14	4	1	1	7	6	21	10
11:00		1	0			3	0				
11:15		3	1			0	0				
11:30		2	0			5	1				
11:45		2	1	8	2	4	2	12	3	20	5
Total		80	123	80	123	51	148	51	148	131	271
Combined Total		203		203		199		199		402	
AM Peak	-	07:45	-	-	-	07:45	-	-	-	-	-
Vol.	-	23	-	-	-	12	-	-	-	-	-
P.H.F.		0.719				0.750					
PM Peak	-	-	03:00	-	-	-	04:45	-	-	-	-
Vol.	-	-	21	-	-	-	29	-	-	-	-
P.H.F.			0.750				0.806				
Percentage		39.4%	60.6%			25.6%	74.4%				
ADT/AADT		ADT 402		AADT 402							

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City of Redlands
Tennessee Street / San Mateo Street
B/ Colton Avenue - Brookside Avenue
24 Hour Directional Volume Count

RED119
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		5	96			10	77				
12:15		3	112			10	68				
12:30		5	90			3	76				
12:45		3	84	16	382	9	78	32	299	48	681
01:00		2	92			1	79				
01:15		3	90			3	69				
01:30		1	84			2	89				
01:45		1	99	7	365	2	92	8	329	15	694
02:00		2	108			6	81				
02:15		2	118			2	84				
02:30		4	106			0	94				
02:45		3	**128**	11	460	3	**188**	11	447	22	907
03:00		6	**113**			3	**171**				
03:15		3	**106**			5	**117**				
03:30		7	**132**			4	**121**				
03:45		5	104	21	455	7	116	19	525	40	980
04:00		7	95			3	111				
04:15		6	108			10	89				
04:30		15	109			14	114				
04:45		13	114	41	426	15	120	42	434	83	860
05:00		16	84			12	135				
05:15		20	85			24	103				
05:30		29	78			23	104				
05:45		30	84	95	331	22	87	81	429	176	760
06:00		39	70			15	102				
06:15		33	74			13	77				
06:30		65	69			41	67				
06:45		89	57	226	270	36	91	105	337	331	607
07:00		97	85			43	77				
07:15		120	53			67	50				
07:30		**174**	51			**123**	67				
07:45		**188**	56	579	245	**167**	55	400	249	979	494
08:00		**121**	36			**95**	37				
08:15		**137**	32			**108**	51				
08:30		121	37			60	49				
08:45		112	32	491	137	63	48	326	185	817	322
09:00		90	29			59	50				
09:15		83	25			75	41				
09:30		78	20			54	24				
09:45		93	16	344	90	60	26	248	141	592	231
10:00		90	23			62	24				
10:15		104	17			74	16				
10:30		89	8			75	18				
10:45		77	14	360	62	60	14	271	72	631	134
11:00		89	7			75	17				
11:15		95	10			82	14				
11:30		104	3			70	7				
11:45		124	11	412	31	75	7	302	45	714	76
Total		2603	3254	2603	3254	1845	3492	1845	3492	4448	6746
Combined Total		5857		5857		5337		5337		11194	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	620	-	-	-	493	-	-	-	-	-
P.H.F.		0.824				0.738					
PM Peak	-	-	02:45	-	-	-	02:45	-	-	-	-
Vol.	-	-	479	-	-	-	597	-	-	-	-
P.H.F.			0.907				0.794				
Percentage		44.4%	55.6%			34.6%	65.4%				
ADT/AADT		ADT 11,194		AADT 11,194							

Counts Unlimited, Inc.

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City of Redlands
Terracina Boulevard
B/ Barton Road - Olive Avenue
24 Hour Directional Volume Count

RED120
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		9	77			3	52				
12:15		1	61			2	60				
12:30		7	80			3	59				
12:45		10	62	27	280	3	63	11	234	38	514
01:00		5	74			5	68				
01:15		5	71			5	68				
01:30		8	81			4	68				
01:45		4	69	22	295	6	54	20	258	42	553
02:00		5	89			2	77				
02:15		4	84			2	81				
02:30		4	86			3	92				
02:45		4	80	17	339	6	84	13	334	30	673
03:00		1	**101**			3	**106**				
03:15		1	**136**			0	**87**				
03:30		3	**120**			2	**99**				
03:45		6	**84**	11	441	9	**94**	14	386	25	827
04:00		4	77			5	94				
04:15		6	73			6	92				
04:30		9	82			7	93				
04:45		15	74	34	306	23	85	41	364	75	670
05:00		11	74			10	93				
05:15		12	72			20	97				
05:30		20	74			27	98				
05:45		18	51	61	271	47	79	104	367	165	638
06:00		18	51			26	65				
06:15		44	40			56	73				
06:30		55	55			57	57				
06:45		52	57	169	203	100	61	239	256	408	459
07:00		73	59			62	43				
07:15		92	47			45	33				
07:30		**145**	45			75	50				
07:45		**119**	35	429	186	**87**	33	269	159	698	345
08:00		**134**	34			**75**	30				
08:15		**138**	31			**109**	33				
08:30		126	26			**80**	24				
08:45		97	16	495	107	69	26	333	113	828	220
09:00		62	29			71	27				
09:15		67	19			62	18				
09:30		75	16			48	9				
09:45		73	10	277	74	57	16	238	70	515	144
10:00		72	10			47	14				
10:15		57	15			63	8				
10:30		56	6			58	15				
10:45		73	15	258	46	66	21	234	58	492	104
11:00		69	23			52	10				
11:15		70	22			75	9				
11:30		61	23			56	6				
11:45		72	7	272	75	52	5	235	30	507	105
Total		2072	2623	2072	2623	1751	2629	1751	2629	3823	5252
Combined Total		4695		4695		4380		4380		9075	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	536	-	-	-	351	-	-	-	-	-
P.H.F.		0.924				0.805					
PM Peak	-	-	03:00	-	-	-	03:00	-	-	-	-
Vol.	-	-	441	-	-	-	386	-	-	-	-
P.H.F.			0.811				0.910				
Percentage		44.1%	55.9%			40.0%	60.0%				
ADT/AADT		ADT 9,075		AADT 9,075							

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City of Redlands
Terracina Boulevard
B/ Olive Avenue - Cypress Avenue
24 Hour Directional Volume Count

RED121
Site Code: 105-21433

Start Time	09-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	56			4	48				
12:15		2	61			3	48				
12:30		5	65			2	58				
12:45		3	55	18	237	4	45	13	199	31	436
01:00		5	65			6	80				
01:15		4	78			3	66				
01:30		6	72			6	52				
01:45		7	73	22	288	6	58	21	256	43	544
02:00		6	74			4	70				
02:15		4	80			2	63				
02:30		4	82			2	80				
02:45		2	**73**	16	309	6	78	14	291	30	600
03:00		1	**86**			5	98				
03:15		0	**116**			3	83				
03:30		4	**115**			1	82				
03:45		6	73	11	390	8	89	17	352	28	742
04:00		4	72			6	81				
04:15		5	58			5	85				
04:30		6	73			7	93				
04:45		10	63	25	266	18	75	36	334	61	600
05:00		12	61			12	**98**				
05:15		8	61			17	**92**				
05:30		19	55			29	**90**				
05:45		18	48	57	225	42	**83**	100	363	157	588
06:00		18	43			35	58				
06:15		41	39			43	76				
06:30		49	48			42	58				
06:45		50	45	158	175	88	52	208	244	366	419
07:00		58	56			68	51				
07:15		85	47			51	33				
07:30		**139**	47			48	34				
07:45		**123**	32	405	182	**70**	41	237	159	642	341
08:00		**117**	36			**74**	29				
08:15		**127**	30			**103**	36				
08:30		119	26			**79**	23				
08:45		98	14	461	106	69	25	325	113	786	219
09:00		60	27			72	26				
09:15		56	18			61	23				
09:30		64	18			53	10				
09:45		61	8	241	71	45	12	231	71	472	142
10:00		65	9			43	12				
10:15		70	11			53	7				
10:30		39	7			51	18				
10:45		56	15	230	42	74	16	221	53	451	95
11:00		69	21			58	11				
11:15		56	13			49	13				
11:30		57	27			65	6				
11:45		70	9	252	70	59	3	231	33	483	103
Total		1896	2361	1896	2361	1654	2468	1654	2468	3550	4829
Combined Total		4257		4257		4122		4122		8379	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	506	-	-	-	326	-	-	-	-	-
P.H.F.		0.910				0.791					
PM Peak	-	-	02:45	-	-	-	05:00	-	-	-	-
Vol.	-	-	390	-	-	-	363	-	-	-	-
P.H.F.			0.841				0.926				
Percentage		44.5%	55.5%			40.1%	59.9%				
ADT/AADT		ADT 8,379		AADT 8,379							

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City of Redlands
Texas Street
B/ Redlands Boulevard - Lugonia Avenue
24 Hour Directional Volume Count

RED122
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		7	72			7	51				
12:15		8	62			3	64				
12:30		1	78			5	61				
12:45		6	73	22	285	7	61	22	237	44	522
01:00		7	61			2	56				
01:15		3	71			6	81				
01:30		5	79			2	79				
01:45		4	83	19	294	2	65	12	281	31	575
02:00		6	86			3	62				
02:15		2	84			1	79				
02:30		2	87			4	82				
02:45		3	99	13	356	3	64	11	287	24	643
03:00		3	128			0	62				
03:15		4	88			1	75				
03:30		3	83			4	**93**				
03:45		3	116	13	415	2	**100**	7	330	20	745
04:00		3	113			4	**87**				
04:15		5	106			4	**82**				
04:30		6	103			5	87				
04:45		12	99	26	421	3	75	16	331	42	752
05:00		6	**137**			12	66				
05:15		5	**105**			16	69				
05:30		5	**115**			19	85				
05:45		9	**114**	25	471	24	86	71	306	96	777
06:00		9	80			13	69				
06:15		22	106			35	71				
06:30		24	70			42	59				
06:45		24	76	79	332	50	70	140	269	219	601
07:00		36	59			48	52				
07:15		37	62			89	60				
07:30		40	57			**118**	37				
07:45		**77**	61	190	239	**142**	40	397	189	587	428
08:00		**76**	57			**83**	50				
08:15		**72**	49			**103**	49				
08:30		**62**	51			83	39				
08:45		67	44	277	201	48	35	317	173	594	374
09:00		43	36			51	32				
09:15		48	32			58	26				
09:30		55	27			48	26				
09:45		55	30	201	125	46	14	203	98	404	223
10:00		45	21			50	20				
10:15		55	25			58	14				
10:30		47	15			53	11				
10:45		46	10	193	71	55	7	216	52	409	123
11:00		50	6			64	9				
11:15		70	12			48	7				
11:30		55	13			58	9				
11:45		57	8	232	39	69	13	239	38	471	77
Total		1290	3249	1290	3249	1651	2591	1651	2591	2941	5840
Combined Total		4539		4539		4242		4242		8781	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	287	-	-	-	446	-	-	-	-	-
P.H.F.		0.932				0.785					
PM Peak	-	-	05:00	-	-	-	03:30	-	-	-	-
Vol.	-	-	471	-	-	-	362	-	-	-	-
P.H.F.			0.859				0.905				
Percentage		28.4%	71.6%			38.9%	61.1%				
ADT/AADT		ADT 8,781		AADT 8,781							

Counts Unlimited, Inc.

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City of Redlands
Texas Street
B/ Lugonia Avenue - San Bernardino Avenue
24 Hour Directional Volume Count

RED123
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	33			2	27				
12:15		3	22			0	22				
12:30		1	33			2	31				
12:45		1	31	7	119	2	29	6	109	13	228
01:00		3	37			4	23				
01:15		4	27			3	21				
01:30		5	33			4	32				
01:45		1	46	13	143	1	28	12	104	25	247
02:00		1	46			5	29				
02:15		2	32			1	34				
02:30		0	46			3	25				
02:45		5	**64**	8	188	5	25	14	113	22	301
03:00		0	**71**			1	30				
03:15		2	**75**			3	**61**				
03:30		3	**57**			3	**63**				
03:45		4	61	9	264	1	**51**	8	205	17	469
04:00		5	56			3	**37**				
04:15		4	48			4	31				
04:30		8	48			5	54				
04:45		18	53	35	205	5	48	17	170	52	375
05:00		8	52			13	26				
05:15		9	61			10	49				
05:30		20	42			7	59				
05:45		17	58	54	213	8	63	38	197	92	410
06:00		14	36			7	41				
06:15		12	48			6	34				
06:30		22	35			21	34				
06:45		30	42	78	161	25	31	59	140	137	301
07:00		28	23			28	33				
07:15		36	33			47	24				
07:30		**46**	24			41	31				
07:45		**79**	31	189	111	**53**	16	169	104	358	215
08:00		**87**	25			**58**	31				
08:15		**81**	34			**64**	20				
08:30		39	34			**42**	19				
08:45		34	26	241	119	26	19	190	89	431	208
09:00		24	11			22	13				
09:15		25	12			25	9				
09:30		25	10			29	9				
09:45		30	11	104	44	22	11	98	42	202	86
10:00		21	12			30	15				
10:15		32	11			26	12				
10:30		31	9			25	9				
10:45		27	11	111	43	19	6	100	42	211	85
11:00		22	5			27	5				
11:15		29	2			29	10				
11:30		32	6			23	7				
11:45		28	5	111	18	24	3	103	25	214	43
Total		960	1628	960	1628	814	1340	814	1340	1774	2968
Combined Total		2588		2588		2154		2154		4742	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	293	-	-	-	217	-	-	-	-	-
P.H.F.		0.842				0.848					
PM Peak	-	-	02:45	-	-	-	03:15	-	-	-	-
Vol.	-	-	267	-	-	-	212	-	-	-	-
P.H.F.			0.890				0.841				
Percentage		37.1%	62.9%			37.8%	62.2%				
ADT/AADT		ADT 4,742		AADT 4,742							

Counts Unlimited, Inc.

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City of Redlands
Texas Street
B/ San Bernardino Avenue - Domestic Avenue
24 Hour Directional Volume Count

RED124
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		1	31			1	17				
12:15		4	18			0	15				
12:30		2	22			0	24				
12:45		1	23	8	94	2	32	3	88	11	182
01:00		3	24			1	25				
01:15		2	23			2	21				
01:30		3	24			0	29				
01:45		1	28	9	99	1	23	4	98	13	197
02:00		1	49			3	17				
02:15		1	30			0	43				
02:30		0	30			2	20				
02:45		3	**73**	5	182	1	20	6	100	11	282
03:00		0	**86**			1	**41**				
03:15		2	**60**			2	**67**				
03:30		5	**37**			3	**31**				
03:45		6	53	13	236	6	**55**	12	194	25	430
04:00		1	48			4	33				
04:15		2	31			7	29				
04:30		8	37			2	43				
04:45		9	37	20	153	3	28	16	133	36	286
05:00		6	42			4	22				
05:15		7	47			10	34				
05:30		5	45			6	38				
05:45		12	48	30	182	15	38	35	132	65	314
06:00		8	28			13	36				
06:15		18	31			9	27				
06:30		22	25			18	22				
06:45		26	35	74	119	23	14	63	99	137	218
07:00		23	25			32	17				
07:15		34	32			51	12				
07:30		**52**	24			**42**	20				
07:45		**91**	29	200	110	**49**	17	174	66	374	176
08:00		**141**	24			**90**	19				
08:15		**125**	28			**89**	19				
08:30		29	19			27	19				
08:45		22	26	317	97	17	16	223	73	540	170
09:00		14	17			21	8				
09:15		25	15			21	6				
09:30		17	10			18	9				
09:45		18	14	74	56	12	7	72	30	146	86
10:00		13	8			31	11				
10:15		20	16			20	8				
10:30		18	8			20	6				
10:45		24	5	75	37	24	5	95	30	170	67
11:00		20	10			21	2				
11:15		23	8			22	5				
11:30		20	5			16	4				
11:45		18	5	81	28	14	5	73	16	154	44
Total		906	1393	906	1393	776	1059	776	1059	1682	2452
Combined Total		2299		2299		1835		1835		4134	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	409	-	-	-	270	-	-	-	-	-
P.H.F.		0.725				0.750					
PM Peak	-	-	02:45	-	-	-	03:00	-	-	-	-
Vol.	-	-	256	-	-	-	194	-	-	-	-
P.H.F.			0.744				0.724				
Percentage		39.4%	60.6%			42.3%	57.7%				
ADT/AADT		ADT 4,134		AADT 4,134							

Counts Unlimited, Inc.

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City of Redlands
University Street
B/ Cypress Avenue - Colton Avenue
24 Hour Directional Volume Count

RED125
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		25	122			19	128				
12:15		28	118			15	152				
12:30		16	141			20	131				
12:45		21	123	90	504	11	122	65	533	155	1037
01:00		12	125			13	102				
01:15		16	118			12	110				
01:30		21	**134**			11	116				
01:45		14	**138**	63	515	12	96	48	424	111	939
02:00		7	**137**			9	**134**				
02:15		14	**127**			9	**156**				
02:30		6	127			7	**143**				
02:45		14	129	41	520	10	**143**	35	576	76	1096
03:00		7	135			18	121				
03:15		11	130			16	116				
03:30		9	135			39	144				
03:45		6	122	33	522	28	141	101	522	134	1044
04:00		8	123			35	140				
04:15		15	113			50	121				
04:30		14	116			74	124				
04:45		23	124	60	476	63	118	222	503	282	979
05:00		16	109			71	149				
05:15		16	104			95	123				
05:30		36	99			116	127				
05:45		64	116	132	428	90	136	372	535	504	963
06:00		45	125			129	142				
06:15		38	99			142	136				
06:30		53	133			172	108				
06:45		76	123	212	480	195	107	638	493	850	973
07:00		65	117			**204**	92				
07:15		95	137			**223**	82				
07:30		122	102			**222**	92				
07:45		104	116	386	472	**215**	95	864	361	1250	833
08:00		119	119			170	90				
08:15		102	113			153	73				
08:30		**108**	98			162	71				
08:45		**134**	85	463	415	145	70	630	304	1093	719
09:00		**150**	83			93	69				
09:15		**151**	86			125	62				
09:30		103	85			134	44				
09:45		118	79	522	333	133	52	485	227	1007	560
10:00		89	68			112	59				
10:15		112	69			118	43				
10:30		119	40			102	23				
10:45		131	51	451	228	154	25	486	150	937	378
11:00		96	41			110	23				
11:15		97	35			115	24				
11:30		113	33			126	25				
11:45		108	28	414	137	134	18	485	90	899	227
Total		2867	5030	2867	5030	4431	4718	4431	4718	7298	9748
Combined Total		7897		7897		9149		9149		17046	
AM Peak	-	08:30	-	-	-	07:00	-	-	-	-	-
Vol.	-	543	-	-	-	864	-	-	-	-	-
P.H.F.		0.899				0.969					
PM Peak	-	-	01:30	-	-	-	02:00	-	-	-	-
Vol.	-	-	536	-	-	-	576	-	-	-	-
P.H.F.			0.971				0.923				
Percentage		36.3%	63.7%			48.4%	51.6%				
ADT/AADT		ADT 17,046		AADT 17,046							

Counts Unlimited, Inc.

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City of Redlands
University Street
B/ Colton Avenue - Lugonia Avenue
24 Hour Directional Volume Count

RED126
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		21	90			17	79				
12:15		22	77			7	79				
12:30		10	81			12	82				
12:45		12	77	65	325	6	70	42	310	107	635
01:00		10	77			9	70				
01:15		14	98			7	70				
01:30		14	65			9	81				
01:45		8	91	46	331	6	71	31	292	77	623
02:00		6	98			4	98				
02:15		9	70			3	72				
02:30		4	104			3	75				
02:45		6	109	25	381	7	91	17	336	42	717
03:00		7	108			9	67				
03:15		5	**98**			16	**85**				
03:30		10	**107**			27	**88**				
03:45		5	**132**	27	445	19	**101**	71	341	98	786
04:00		6	**119**			25	**78**				
04:15		9	75			24	60				
04:30		11	101			38	63				
04:45		14	110	40	405	36	72	123	273	163	678
05:00		11	92			38	87				
05:15		11	91			61	55				
05:30		21	88			69	75				
05:45		37	87	80	358	64	79	232	296	312	654
06:00		32	104			72	79				
06:15		20	103			81	82				
06:30		35	105			104	61				
06:45		33	87	120	399	96	74	353	296	473	695
07:00		38	108			**115**	57				
07:15		67	107			**152**	46				
07:30		76	92			**133**	66				
07:45		61	103	242	410	**100**	77	500	246	742	656
08:00		59	82			87	58				
08:15		60	88			88	64				
08:30		66	75			114	58				
08:45		53	67	238	312	76	60	365	240	603	552
09:00		54	56			85	53				
09:15		53	54			96	49				
09:30		71	55			89	29				
09:45		62	49	240	214	71	39	341	170	581	384
10:00		57	52			65	41				
10:15		57	57			83	20				
10:30		62	22			74	21				
10:45		64	34	240	165	74	20	296	102	536	267
11:00		**75**	29			55	13				
11:15		**72**	20			79	19				
11:30		**88**	18			78	14				
11:45		**78**	23	313	90	73	7	285	53	598	143
Total		1676	3835	1676	3835	2656	2955	2656	2955	4332	6790
Combined Total		5511		5511		5611		5611		11122	
AM Peak	-	11:00	-	-	-	07:00	-	-	-	-	-
Vol.	-	313	-	-	-	500	-	-	-	-	-
P.H.F.		0.889				0.822					
PM Peak	-	-	03:15	-	-	-	03:15	-	-	-	-
Vol.	-	-	456	-	-	-	352	-	-	-	-
P.H.F.			0.864				0.871				
Percentage		30.4%	69.6%			47.3%	52.7%				
ADT/AADT		ADT 11,122		AADT 11,122							

Counts Unlimited, Inc.

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City of Redlands
University Street
B/ Lugonia Avenue - San Bernardino Avenue
24 Hour Directional Volume Count

RED127
Site Code: 105-21433

Start Time	02-Sep-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		4	5			3	20				
12:15		4	22			0	13				
12:30		0	8			0	9				
12:45		3	17	11	52	0	12	3	54	14	106
01:00		1	7			0	5				
01:15		1	7			2	10				
01:30		2	7			0	11				
01:45		2	11	6	32	1	23	3	49	9	81
02:00		0	24			0	15				
02:15		2	11			0	10				
02:30		0	13			0	11				
02:45		0	16	2	64	1	7	1	43	3	107
03:00		1	17			0	**14**				
03:15		0	14			2	**18**				
03:30		2	18			1	**16**				
03:45		0	15	3	64	1	**17**	4	65	7	129
04:00		1	21			0	11				
04:15		3	9			3	8				
04:30		0	**14**			0	8				
04:45		0	**17**	4	61	3	4	6	31	10	92
05:00		0	**27**			1	14				
05:15		2	**22**			1	8				
05:30		1	14			2	20				
05:45		4	16	7	79	5	17	9	59	16	138
06:00		1	16			7	9				
06:15		1	18			5	8				
06:30		6	16			8	11				
06:45		3	16	11	66	9	10	29	38	40	104
07:00		5	12			4	10				
07:15		8	16			**27**	9				
07:30		**16**	13			**25**	8				
07:45		**11**	14	40	55	**16**	1	72	28	112	83
08:00		**12**	5			**8**	6				
08:15		**12**	7			16	5				
08:30		10	10			18	8				
08:45		10	4	44	26	8	5	50	24	94	50
09:00		10	5			10	8				
09:15		6	3			16	8				
09:30		6	9			9	3				
09:45		11	7	33	24	12	0	47	19	80	43
10:00		9	6			9	3				
10:15		8	3			6	1				
10:30		6	2			15	1				
10:45		11	5	34	16	15	5	45	10	79	26
11:00		10	5			7	2				
11:15		16	2			11	2				
11:30		7	2			13	3				
11:45		9	1	42	10	5	1	36	8	78	18
Total		237	549	237	549	305	428	305	428	542	977
Combined Total		786		786		733		733		1519	
AM Peak	-	07:30	-	-	-	07:15	-	-	-	-	-
Vol.	-	51	-	-	-	76	-	-	-	-	-
P.H.F.		0.797				0.704					
PM Peak	-	-	04:30	-	-	-	03:00	-	-	-	-
Vol.	-	-	80	-	-	-	65	-	-	-	-
P.H.F.			0.741				0.707				
Percentage		30.2%	69.8%			41.6%	58.4%				
ADT/AADT		ADT 1,519		AADT 1,519							

Counts Unlimited, Inc.

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City of Redlands
Via Vista Drive
B/ Country Club Drive - Helena Lane
24 Hour Directional Volume Count

RED128
Site Code: 105-21433

Start Time	08-Sep-21 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	1			0	1				
12:15		0	3			0	3				
12:30		0	2			0	3				
12:45		0	2	2	8	1	2	1	9	3	17
01:00		1	1			0	3				
01:15		0	2			0	1				
01:30		0	2			0	**2**				
01:45		2	3	3	8	0	**3**	0	9	3	17
02:00		0	1			0	**4**				
02:15		0	1			0	**5**				
02:30		0	3			0	0				
02:45		0	2	0	7	1	5	1	14	1	21
03:00		0	3			1	2				
03:15		0	4			0	1				
03:30		0	5			0	5				
03:45		0	2	0	14	1	2	2	10	2	24
04:00		0	1			1	2				
04:15		0	0			0	3				
04:30		0	3			0	2				
04:45		1	5	1	9	0	0	1	7	2	16
05:00		0	0			0	4				
05:15		0	**3**			0	0				
05:30		3	**6**			0	3				
05:45		1	**8**	4	17	3	4	3	11	7	28
06:00		0	**5**			1	4				
06:15		1	2			0	3				
06:30		1	4			0	3				
06:45		2	1	4	12	0	4	1	14	5	26
07:00		0	3			0	0				
07:15		0	2			2	5				
07:30		**2**	5			**3**	2				
07:45		**2**	2	4	12	**0**	0	5	7	9	19
08:00		**2**	4			**4**	2				
08:15		**2**	1			**5**	0				
08:30		0	4			1	1				
08:45		0	0	4	9	0	0	10	3	14	12
09:00		1	1			1	1				
09:15		1	0			0	0				
09:30		2	3			3	1				
09:45		0	0	4	4	2	2	6	4	10	8
10:00		2	0			2	1				
10:15		1	1			1	0				
10:30		3	0			3	1				
10:45		0	0	6	1	1	0	7	2	13	3
11:00		4	0			1	1				
11:15		1	0			0	0				
11:30		0	0			1	0				
11:45		2	0	7	0	3	1	5	2	12	2
Total		39	101	39	101	42	92	42	92	81	193
Combined Total		140		140		134		134		274	
AM Peak	-	07:30	-	-	-	07:30	-	-	-	-	-
Vol.	-	8	-	-	-	12	-	-	-	-	-
P.H.F.		1.000				0.600					
PM Peak	-	-	05:15	-	-	-	01:30	-	-	-	-
Vol.	-	-	22	-	-	-	14	-	-	-	-
P.H.F.			0.688				0.700				
Percentage		27.9%	72.1%			31.3%	68.7%				
ADT/AADT		ADT 274		AADT 274							

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City of Redlands
Wabash Avenue
B/ Fifth Avenue - Citrus Avenue
24 Hour Directional Volume Count

RED129
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	37			1	41				
12:15		3	23			3	35				
12:30		3	36			1	35				
12:45		2	18	11	114	0	34	5	145	16	259
01:00		1	19			0	24				
01:15		2	21			2	21				
01:30		2	49			1	24				
01:45		1	34	6	123	0	32	3	101	9	224
02:00		0	29			4	43				
02:15		0	30			0	56				
02:30		0	26			2	36				
02:45		0	29	0	114	0	47	6	182	6	296
03:00		0	**54**			1	34				
03:15		0	**51**			3	55				
03:30		2	**41**			0	71				
03:45		1	**35**	3	181	2	56	6	216	9	397
04:00		3	28			1	42				
04:15		1	22			2	62				
04:30		4	33			1	47				
04:45		4	39	12	122	3	**67**	7	218	19	340
05:00		5	35			2	**59**				
05:15		3	25			5	**60**				
05:30		4	33			4	**56**				
05:45		12	42	24	135	8	53	19	228	43	363
06:00		5	38			9	51				
06:15		11	31			9	38				
06:30		9	21			16	44				
06:45		17	17	42	107	20	49	54	182	96	289
07:00		30	28			21	50				
07:15		35	21			38	34				
07:30		31	20			**36**	32				
07:45		**52**	13	148	82	**45**	31	140	147	288	229
08:00		**71**	19			**39**	34				
08:15		**51**	23			**49**	27				
08:30		**32**	11			24	21				
08:45		26	9	180	62	26	14	138	96	318	158
09:00		28	13			15	16				
09:15		24	12			32	9				
09:30		26	12			25	17				
09:45		36	8	114	45	27	13	99	55	213	100
10:00		21	13			14	10				
10:15		23	7			22	8				
10:30		22	3			33	7				
10:45		34	4	100	27	34	4	103	29	203	56
11:00		17	6			30	7				
11:15		28	3			23	5				
11:30		31	1			22	3				
11:45		29	0	105	10	30	1	105	16	210	26
Total		745	1122	745	1122	685	1615	685	1615	1430	2737
Combined Total		1867		1867		2300		2300		4167	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	206	-	-	-	169	-	-	-	-	-
P.H.F.		0.725				0.862					
PM Peak	-	-	03:00	-	-	-	04:45	-	-	-	-
Vol.	-	-	181	-	-	-	242	-	-	-	-
P.H.F.			0.838				0.903				
Percentage		39.9%	60.1%			29.8%	70.2%				
ADT/AADT		ADT 4,167		AADT 4,167							

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City of Redlands
Wabash Avenue
B/ Citrus Avenue - Colton Avenue
24 Hour Directional Volume Count

RED130
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	54			4	45				
12:15		3	31			2	52				
12:30		3	46			2	49				
12:45		1	28	10	159	1	49	9	195	19	354
01:00		3	37			2	41				
01:15		3	31			1	48				
01:30		3	44			1	57				
01:45		5	44	14	156	1	53	5	199	19	355
02:00		1	76			6	75				
02:15		1	61			4	54				
02:30		1	31			3	42				
02:45		1	46	4	214	1	55	14	226	18	440
03:00		1	58			3	36				
03:15		2	**72**			4	56				
03:30		4	**71**			0	73				
03:45		3	**44**	10	245	2	47	9	212	19	457
04:00		2	**61**			3	52				
04:15		2	41			8	61				
04:30		5	46			6	58				
04:45		7	61	16	209	8	62	25	233	41	442
05:00		7	66			5	56				
05:15		10	48			6	**66**				
05:30		9	58			12	**59**				
05:45		18	72	44	244	13	**66**	36	247	80	491
06:00		7	55			9	**58**				
06:15		13	54			16	53				
06:30		13	31			23	57				
06:45		18	30	51	170	30	64	78	232	129	402
07:00		32	43			35	52				
07:15		30	32			**70**	37				
07:30		40	26			**109**	38				
07:45		**84**	28	186	129	**130**	37	344	164	530	293
08:00		**62**	37			**49**	37				
08:15		**52**	36			44	28				
08:30		**50**	11			39	26				
08:45		32	21	196	105	26	18	158	109	354	214
09:00		34	18			28	17				
09:15		40	19			42	15				
09:30		36	17			32	19				
09:45		40	9	150	63	31	18	133	69	283	132
10:00		26	19			31	10				
10:15		38	11			37	12				
10:30		30	8			46	8				
10:45		50	7	144	45	42	4	156	34	300	79
11:00		27	8			41	10				
11:15		44	7			28	7				
11:30		49	2			26	5				
11:45		42	7	162	24	49	2	144	24	306	48
Total		987	1763	987	1763	1111	1944	1111	1944	2098	3707
Combined Total		2750		2750		3055		3055		5805	
AM Peak	-	07:45	-	-	-	07:15	-	-	-	-	-
Vol.	-	248	-	-	-	358	-	-	-	-	-
P.H.F.		0.738				0.688					
PM Peak	-	-	03:15	-	-	-	05:15	-	-	-	-
Vol.	-	-	248	-	-	-	249	-	-	-	-
P.H.F.			0.861				0.943				
Percentage		35.9%	64.1%			36.4%	63.6%				
ADT/AADT		ADT 5,805		AADT 5,805							

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City of Redlands
Wabash Avenue
B/ Colton Avenue - Sessums Drive
24 Hour Directional Volume Count

RED131
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		6	68			4	67				
12:15		8	64			11	74				
12:30		4	77			7	75				
12:45		2	60	20	269	2	75	24	291	44	560
01:00		0	49			2	60				
01:15		1	69			2	65				
01:30		1	65			1	60				
01:45		6	45	8	228	2	75	7	260	15	488
02:00		3	56			8	86				
02:15		5	112			1	70				
02:30		2	59			6	78				
02:45		2	73	12	300	4	85	19	319	31	619
03:00		0	72			3	78				
03:15		0	**133**			4	**125**				
03:30		5	**174**			1	**114**				
03:45		5	**90**	10	469	10	**86**	18	403	28	872
04:00		5	**87**			6	**93**				
04:15		6	71			5	87				
04:30		9	69			3	80				
04:45		14	100	34	327	10	94	24	354	58	681
05:00		8	76			9	99				
05:15		18	87			7	94				
05:30		20	84			9	91				
05:45		29	91	75	338	19	93	44	377	119	715
06:00		31	92			19	102				
06:15		29	79			24	90				
06:30		45	59			34	82				
06:45		44	60	149	290	32	76	109	350	258	640
07:00		41	62			32	83				
07:15		54	51			47	73				
07:30		60	45			**73**	69				
07:45		69	45	224	203	**109**	56	261	281	485	484
08:00		**112**	48			**122**	60				
08:15		**126**	57			**77**	69				
08:30		**77**	27			63	49				
08:45		**74**	35	389	167	46	45	308	223	697	390
09:00		47	33			61	35				
09:15		62	28			65	37				
09:30		59	21			52	30				
09:45		49	16	217	98	49	31	227	133	444	231
10:00		54	22			55	26				
10:15		51	16			40	21				
10:30		52	13			61	16				
10:45		55	10	212	61	48	15	204	78	416	139
11:00		52	6			62	16				
11:15		56	7			48	12				
11:30		60	4			54	6				
11:45		70	6	238	23	65	4	229	38	467	61
Total		1588	2773	1588	2773	1474	3107	1474	3107	3062	5880
Combined Total		4361		4361		4581		4581		8942	
AM Peak	-	08:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	389	-	-	-	381	-	-	-	-	-
P.H.F.		0.772				0.781					
PM Peak	-	-	03:15	-	-	-	03:15	-	-	-	-
Vol.	-	-	484	-	-	-	418	-	-	-	-
P.H.F.			0.695				0.836				
Percentage		36.4%	63.6%			32.2%	67.8%				
ADT/AADT		ADT 8,942		AADT 8,942							

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City of Redlands
Wabash Avenue
B/ Fifth Avenue - Panorama Drive
24 Hour Directional Volume Count

RED132
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	7			0	3				
12:15		0	3			1	5				
12:30		0	8			1	**6**				
12:45		0	6	0	24	0	**12**	2	26	2	50
01:00		0	9			0	**6**				
01:15		0	1			0	**9**				
01:30		0	7			0	4				
01:45		0	4	0	21	0	8	0	27	0	48
02:00		1	4			0	7				
02:15		0	**6**			0	2				
02:30		0	**7**			0	7				
02:45		0	**11**	1	28	0	8	0	24	1	52
03:00		0	**7**			0	5				
03:15		0	6			1	9				
03:30		0	3			0	9				
03:45		0	9	0	25	1	6	2	29	2	54
04:00		0	4			0	7				
04:15		0	3			0	9				
04:30		0	7			0	8				
04:45		0	4	0	18	0	7	0	31	0	49
05:00		1	7			0	7				
05:15		1	2			0	3				
05:30		2	4			0	9				
05:45		3	9	7	22	1	10	1	29	8	51
06:00		1	7			1	5				
06:15		4	4			0	5				
06:30		2	3			3	10				
06:45		5	2	12	16	4	1	8	21	20	37
07:00		3	7			4	2				
07:15		**12**	1			3	6				
07:30		**11**	3			4	4				
07:45		**5**	1	31	12	5	5	16	17	47	29
08:00		**12**	1			5	7				
08:15		12	2			3	2				
08:30		2	1			2	1				
08:45		10	0	36	4	4	2	14	12	50	16
09:00		4	1			5	3				
09:15		3	0			3	1				
09:30		7	2			7	4				
09:45		12	2	26	5	3	5	18	13	44	18
10:00		5	2			3	3				
10:15		7	1			5	3				
10:30		1	0			3	0				
10:45		6	1	19	4	6	0	17	6	36	10
11:00		6	0			**5**	1				
11:15		8	0			**4**	1				
11:30		6	0			**4**	0				
11:45		5	0	25	0	**8**	0	21	2	46	2
Total		157	179	157	179	99	237	99	237	256	416
Combined Total		336		336		336		336		672	
AM Peak	-	07:15	-	-	-	11:00	-	-	-	-	-
Vol.	-	40	-	-	-	21	-	-	-	-	-
P.H.F.		0.833				0.656					
PM Peak	-	-	02:15	-	-	-	00:30	-	-	-	-
Vol.	-	-	31	-	-	-	33	-	-	-	-
P.H.F.			0.705				0.688				
Percentage		46.7%	53.3%			29.5%	70.5%				
ADT/AADT		ADT 672		AADT 672							

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City of Redlands
Wabash Avenue
B/ Reservoir Road - Palo Alto Drive
24 Hour Directional Volume Count

RED133
Site Code: 105-21433

Start Time	26-Aug-21 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	**39**			1	11				
12:15		0	**14**			0	13				
12:30		0	**7**			0	5				
12:45		0	**8**	0	68	0	11	1	40	1	108
01:00		0	7			1	11				
01:15		2	6			0	12				
01:30		0	10			0	4				
01:45		0	4	2	27	0	8	1	35	3	62
02:00		0	8			0	8				
02:15		0	9			0	11				
02:30		0	4			1	7				
02:45		0	8	0	29	2	4	3	30	3	59
03:00		0	16			0	**12**				
03:15		0	14			1	**11**				
03:30		0	9			0	**21**				
03:45		0	7	0	46	0	**10**	1	54	1	100
04:00		0	8			0	11				
04:15		1	7			0	9				
04:30		0	12			0	15				
04:45		1	9	2	36	0	13	0	48	2	84
05:00		2	8			0	8				
05:15		0	3			0	9				
05:30		1	5			0	7				
05:45		5	12	8	28	0	13	0	37	8	65
06:00		4	20			2	7				
06:15		2	7			0	7				
06:30		7	8			4	13				
06:45		5	2	18	37	6	14	12	41	30	78
07:00		5	5			9	12				
07:15		**22**	6			**31**	7				
07:30		**51**	3			**31**	11				
07:45		**64**	3	142	17	**42**	6	113	36	255	53
08:00		**45**	5			**15**	7				
08:15		9	1			9	6				
08:30		10	0			13	5				
08:45		11	1	75	7	6	6	43	24	118	31
09:00		5	4			7	2				
09:15		6	0			2	5				
09:30		8	2			2	1				
09:45		3	0	22	6	3	1	14	9	36	15
10:00		1	0			10	4				
10:15		8	2			2	2				
10:30		5	0			10	3				
10:45		4	3	18	5	4	0	26	9	44	14
11:00		3	1			10	3				
11:15		7	0			21	3				
11:30		11	0			37	0				
11:45		55	0	76	1	41	0	109	6	185	7
Total		363	307	363	307	323	369	323	369	686	676
Combined Total		670		670		692		692		1362	
AM Peak	-	07:15	-	-	-	07:15	-	-	-	-	-
Vol.	-	182	-	-	-	119	-	-	-	-	-
P.H.F.		0.711				0.708					
PM Peak	-	-	12:00	-	-	-	03:00	-	-	-	-
Vol.	-	-	68	-	-	-	54	-	-	-	-
P.H.F.			0.436				0.643				
Percentage		54.2%	45.8%			46.7%	53.3%				
ADT/AADT		ADT 1,362		AADT 1,362							

Appendix D

Speed Study Traffic Condition Summary Forms

CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Alabama Street	SEGMENT #1	DATE: 1/14/2022
LIMITS: b/t Barton Road and Park Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64-104	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Residential/Commercial	Residential/Industrial
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	N
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	14,656	(1)
14. Length of segment (miles)	0.73	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	47	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	33 - 55	(1)
5. 10 mile per hour pace speed (mph)	35 - 44	(1)
6. Percent in 10 miles per hour pace	72.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	9	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.86	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

REGISTERED PROFESSIONAL ENGINEER
MOHAMMAD ALI TABRIZI
TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

Prepared By: Elias Bandek Reviewed By: Alex Tabrizi

CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Alabama Street	SEGMENT #2	DATE: 1/14/2022
LIMITS: b/t Park Avenue and Lugiona Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64-86	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P/R	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Industrial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	25,408	(1)
14. Length of segment (miles)	0.67	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	38	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	32 - 46	(1)
5. 10 mile per hour pace speed (mph)	33 - 42	(1)
6. Percent in 10 miles per hour pace	84.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	33	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.99	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Railroad	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

Prepared By: Elias Bandek Reviewed By: Alex Tabrizi

CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Alabama Street	SEGMENT #3	DATE: 1/14/2022
LIMITS: b/t City Limit s/o Santa Ana River and City Limit n/o Santa Ana River		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	46	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	50	(1)
6. Surrounding land uses	Industrial	None
7. Does surrounding land use have direct access	Y	N
8. Frequency of driveways (frequent, rare, none)	Rare	None
9. Curb and gutter present	Curb (Partial)	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	21,183	(1)
14. Length of segment (miles)	0.87	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	58	(1)
2. Average speed (mph)	52	(1)
3. 50th percentile speed (mph)	51	(1)
4. Range of speeds (mph)	40 - 65	(1)
5. 10 mile per hour pace speed (mph)	47 - 56	(1)
6. Percent in 10 miles per hour pace	64.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.05	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Shoulder (Partial)	(1)
E. Recommended speed limit (mph)[3]	55	55
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Alessandro Road	SEGMENT #4	DATE: 1/14/2022
LIMITS: b/t Crescent Avenue and Sunset Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	36-50	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	Y (Partial), Wall (Partial)
10. Sidewalks present	N	(1)
11. Street illumination midblock	Y (Partial)	N
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	6,071	(1)
14. Length of segment (miles)	0.49	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	45	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	43	(1)
4. Range of speeds (mph)	33 - 48	(1)
5. 10 mile per hour pace speed (mph)	38 - 47	(1)
6. Percent in 10 miles per hour pace	89.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Alessandro Road	SEGMENT #5	DATE: 1/14/2022
LIMITS: b/t Sunset Drive and Creekside Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	26-30	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	N	Y
8. Frequency of driveways (frequent, rare, none)	None	Rare
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	5,671	(1)
14. Length of segment (miles)	0.71	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	47	(1)
2. Average speed (mph)	43	(1)
3. 50th percentile speed (mph)	44	(1)
4. Range of speeds (mph)	34 - 51	(1)
5. 10 mile per hour pace speed (mph)	39 - 48	(1)
6. Percent in 10 miles per hour pace	82.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.51	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	SB Slide Area/NB Trail (Partial)	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Alessandro Road	SEGMENT #6	DATE: 1/14/2022
LIMITS: b/t Creekside Drive and San Timoteo Canyon Road		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	26	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	None	(1)
7. Does surrounding land use have direct access	N	(1)
8. Frequency of driveways (frequent, rare, none)	None	(1)
9. Curb and gutter present	N	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	4,662	(1)
14. Length of segment (miles)	0.22	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	41	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	27 - 44	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	77.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Railroad	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Alta Vista Drive	SEGMENT #7	DATE: 1/14/2022
LIMITS: b/t Florida Street and Sunset Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	26-50	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	2,583	(1)
14. Length of segment (miles)	0.55	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	47	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	42	(1)
4. Range of speeds (mph)	32 - 52	(1)
5. 10 mile per hour pace speed (mph)	37 - 46	(1)
6. Percent in 10 miles per hour pace	73.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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STATE OF CALIFORNIA

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Barton Road	SEGMENT #8	DATE: 1/14/2022
LIMITS: b/t West City Limit and Terracina Boulevard		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	82-88	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Residential	Commercial
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	23,545	(1)
14. Length of segment (miles)	0.16	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	47	(1)
2. Average speed (mph)	43	(1)
3. 50th percentile speed (mph)	43	(1)
4. Range of speeds (mph)	33 - 52	(1)
5. 10 mile per hour pace speed (mph)	38 - 47	(1)
6. Percent in 10 miles per hour pace	75.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.41	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Barton Road	SEGMENT #9	DATE: 1/14/2022
LIMITS: b/t Terracina Boulevard and Alabama Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	86-88	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Residential	Education
7. Does surrounding land use have direct access	N	Y
8. Frequency of driveways (frequent, rare, none)	None	Rare
9. Curb and gutter present	Y	Y (Partial)
10. Sidewalks present	Y	Y (Partial)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	16,681	(1)
14. Length of segment (miles)	0.24	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	46	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	42	(1)
4. Range of speeds (mph)	29 - 52	(1)
5. 10 mile per hour pace speed (mph)	37 - 46	(1)
6. Percent in 10 miles per hour pace	77.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.33	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Barton Road	SEGMENT #10	DATE: 10/07/2022
LIMITS: b/t Alabama Street and Lakeside Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	86-88	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential/Commercial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	12,049	(1)
14. Length of segment (miles)	0.31	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	46	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	31 - 50	(1)
5. 10 mile per hour pace speed (mph)	38 - 47	(1)
6. Percent in 10 miles per hour pace	65%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	6	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	1.97	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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Prepared By: Michael Torres Reviewed By: Justin Tucker

CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Brockton Avenue	SEGMENT #11	DATE: 1/14/2022
LIMITS: b/t New York Street and Texas Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	39	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential/Industrial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	1,288	(1)
14. Length of segment (miles)	0.20	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	37	(1)
2. Average speed (mph)	31	(1)
3. 50th percentile speed (mph)	30	(1)
4. Range of speeds (mph)	22 - 43	(1)
5. 10 mile per hour pace speed (mph)	23 - 32	(1)
6. Percent in 10 miles per hour pace	62.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	5.73	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) MVMT[2] = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Brockton Avenue	SEGMENT #12	DATE: 1/14/2022
LIMITS: b/t Texas Street and Church Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	38	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential/Park	Residential/Utility
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	N	Y
11. Street illumination midblock	N	Y
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	5,161	(1)
14. Length of segment (miles)	0.90	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	37	(1)
4. Range of speeds (mph)	26 - 47	(1)
5. 10 mile per hour pace speed (mph)	33 - 42	(1)
6. Percent in 10 miles per hour pace	64.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	31	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	6.65	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Brockton Avenue	SEGMENT #13	DATE: 1/14/2022
LIMITS: b/t Church Street and Judson Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	39	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential/Education	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	3,426	(1)
14. Length of segment (miles)	0.91	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	41	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	28 - 45	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	82.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	9	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.89	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Brockton Avenue	SEGMENT #14	DATE: 1/14/2022
LIMITS: b/t Judson Street and Wabash Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	38-39	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	2,444	(1)
14. Length of segment (miles)	0.90	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	26 - 45	(1)
5. 10 mile per hour pace speed (mph)	30 - 39	(1)
6. Percent in 10 miles per hour pace	73.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.90	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Brookside Avenue	SEGMENT #15	DATE: 1/14/2022
LIMITS: b/t Lakeside Avenue and Center Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64-68	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	Residential/Commercial
7. Does surrounding land use have direct access	Y	N
8. Frequency of driveways (frequent, rare, none)	Rare	None
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	Y (Partial)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	17,581	(1)
14. Length of segment (miles)	0.65	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	38	(1)
3. 50th percentile speed (mph)	37	(1)
4. Range of speeds (mph)	30 - 47	(1)
5. 10 mile per hour pace speed (mph)	33 - 42	(1)
6. Percent in 10 miles per hour pace	80.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	10	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	0.90	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) MVMT[2] = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Brookside Avenue	SEGMENT #16	DATE: 1/14/2022
LIMITS: b/t Center Street and Eureka Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	66-68	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential/Commercial	Residential/Religious
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	11,844	(1)
14. Length of segment (miles)	0.28	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	38	(1)
2. Average speed (mph)	34	(1)
3. 50th percentile speed (mph)	34	(1)
4. Range of speeds (mph)	24 - 44	(1)
5. 10 mile per hour pace speed (mph)	29 - 38	(1)
6. Percent in 10 miles per hour pace	78.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.13	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Cajon Street	SEGMENT #17	DATE: 1/14/2022
LIMITS: b/t Vine Street and Fern Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	48	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	25	(1)
6. Surrounding land uses	Commercial	Commercial/Religious
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	9,345	(1)
14. Length of segment (miles)	0.26	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	37	(1)
2. Average speed (mph)	32	(1)
3. 50th percentile speed (mph)	32	(1)
4. Range of speeds (mph)	22 - 41	(1)
5. 10 mile per hour pace speed (mph)	29 - 38	(1)
6. Percent in 10 miles per hour pace	73.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.60	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes / Bike Route	(1)
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Cajon Street	SEGMENT #18	DATE: 1/14/2022
LIMITS: b/t Fern Avenue and Garden Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	48-50	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30 (n/o Highland), 35 (s/o)	(1)
6. Surrounding land uses	Residential	Residential/Education
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (partial)	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	5,581	(1)
14. Length of segment (miles)	0.90	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	35	(1)
4. Range of speeds (mph)	24 - 43	(1)
5. 10 mile per hour pace speed (mph)	30 - 39	(1)
6. Percent in 10 miles per hour pace	71.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	15	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.98	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Lanes (Partial) / Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: California Street	SEGMENT #19	DATE: 1/14/2022
LIMITS: b/t Palmetto Avenue and Almond Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	76-114	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R	(1)
4. On-street parking (Y/N)	N	Y
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Industrial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	6,556	(1)
14. Length of segment (miles)	0.66	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	48	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	30 - 53	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	58.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	15	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.98	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: California Street	SEGMENT #20	DATE: 1/14/2022
LIMITS: b/t Almond Avenue and Redlands Boulevard		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	78-112	(1)
2. Number of through travel lanes by direction	3	3 (n/o Lugonia), 2 (s/o)
3. Median Type (P = Painted, R = Raised, N = No Median)	P/R	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Commercial/Industrial	Commercial
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	Y (Partial)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	21,194	(1)
14. Length of segment (miles)	0.66	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	45	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	32 - 51	(1)
5. 10 mile per hour pace speed (mph)	37 - 46	(1)
6. Percent in 10 miles per hour pace	86.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	14	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.04	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.44)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Railroad	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Center Street	SEGMENT #21	DATE: 1/14/2022
LIMITS: b/t State Street and Brookside Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	62-64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	N	Y
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	7,812	(1)
14. Length of segment (miles)	0.28	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	35	(1)
4. Range of speeds (mph)	25 - 46	(1)
5. 10 mile per hour pace speed (mph)	31 - 40	(1)
6. Percent in 10 miles per hour pace	72.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.12	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Dip	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Center Street	SEGMENT #22	DATE: 1/14/2022
LIMITS: b/t Brookside Avenue and Cypress Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	44	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential/Education	Residential
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	6,106	(1)
14. Length of segment (miles)	0.66	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	37	(1)
2. Average speed (mph)	33	(1)
3. 50th percentile speed (mph)	33	(1)
4. Range of speeds (mph)	22 - 44	(1)
5. 10 mile per hour pace speed (mph)	29 - 38	(1)
6. Percent in 10 miles per hour pace	80.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	6	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	1.55	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) MVMT[2] = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Center Street	SEGMENT #23	DATE: 1/14/2022
LIMITS: b/t Cypress Avenue and Crescent Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	50	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	Residential/Commercial
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	Y
12. Street illumination at intersections	N	Y
13. Two-way daily traffic volume (ADT)	6,967	(1)
14. Length of segment (miles)	0.62	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	35	(1)
4. Range of speeds (mph)	24 - 46	(1)
5. 10 mile per hour pace speed (mph)	31 - 40	(1)
6. Percent in 10 miles per hour pace	69.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	6	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.45	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Center Street	SEGMENT #24	DATE: 1/14/2022
LIMITS: b/t Crescent Avenue and Ridge Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	28-38	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	964	(1)
14. Length of segment (miles)	0.75	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	35	(1)
4. Range of speeds (mph)	24 - 46	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	72.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.41	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Central Avenue	SEGMENT #25	DATE: 1/14/2022
LIMITS: b/t University Street and Judson Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	32-35	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	Y (Partial)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	1,221	(1)
14. Length of segment (miles)	0.60	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	37	(1)
2. Average speed (mph)	31	(1)
3. 50th percentile speed (mph)	30	(1)
4. Range of speeds (mph)	22 - 44	(1)
5. 10 mile per hour pace speed (mph)	24 - 33	(1)
6. Percent in 10 miles per hour pace	65.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	4	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	5.73	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Church Street	SEGMENT #26	DATE: 1/14/2022
LIMITS: b/t Pioneer Avenue and Redlands Boulevard		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	32-62	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P/R (Partial)	(1)
4. On-street parking (Y/N)	Y (Partial)	Y
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Res./Commercial/Edu.	Residential/Commercial
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	Y (Partial)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	8,579	(1)
14. Length of segment (miles)	1.83	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	37	(1)
4. Range of speeds (mph)	31 - 45	(1)
5. 10 mile per hour pace speed (mph)	33 - 42	(1)
6. Percent in 10 miles per hour pace	95.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	24	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.46	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Railroad, Bike Lanes/Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Citrus Avenue	SEGMENT #27	DATE: 1/14/2022
LIMITS: b/t Eureka Street and Orange Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	48-64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P/R	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	25	(1)
6. Surrounding land uses	Commercial/Education	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	9,557	(1)
14. Length of segment (miles)	0.15	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	34	(1)
2. Average speed (mph)	31	(1)
3. 50th percentile speed (mph)	31	(1)
4. Range of speeds (mph)	23-37	(1)
5. 10 mile per hour pace speed (mph)	27-36	(1)
6. Percent in 10 miles per hour pace	90.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Lanes/Route	(1)
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Citrus Avenue	SEGMENT #28	DATE: 1/14/2022
LIMITS: b/t Redlands Boulevard and University Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	48-64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P/R	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	25	(1)
6. Surrounding land uses	Commercial/Education	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	9,078	(1)
14. Length of segment (miles)	0.50	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	34	(1)
2. Average speed (mph)	30	(1)
3. 50th percentile speed (mph)	30	(1)
4. Range of speeds (mph)	21-40	(1)
5. 10 mile per hour pace speed (mph)	25-34	(1)
6. Percent in 10 miles per hour pace	80.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	12	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	2.85	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Lanes/Route	(1)
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Citrus Avenue	SEGMENT #29	DATE: 1/14/2022
LIMITS: b/t University Street and Wabash Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	62-64	(1)
2. Number of through travel lanes by direction	1-2	2
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	10,491	(1)
14. Length of segment (miles)	1.50	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	38	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	31 - 50	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	78.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	13	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.80	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Colton Avenue	SEGMENT #30	DATE: 1/14/2022
LIMITS: b/t Redlands Boulevard and Church Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P, R (Partial)	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	35	
6. Surrounding land uses	Commercial	Residential
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	10,159	(1)
14. Length of segment (miles)	1.80	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	43	(1)
2. Average speed (mph)	38	(1)
3. 50th percentile speed (mph)	37	(1)
4. Range of speeds (mph)	29 - 48	(1)
5. 10 mile per hour pace speed (mph)	33 - 42	(1)
6. Percent in 10 miles per hour pace	73.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	70	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	3.64	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Railroad Crossing / Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) MVMT[2] = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Colton Avenue	SEGMENT #31	DATE: 10/07/2022
LIMITS: b/t Church Street and Grove Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	44-48	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R (Partial)	(1)
4. On-street parking (Y/N)	N	Y (Partial)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential/Education	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	7,506	(1)
14. Length of segment (miles)	0.67	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	41	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	28 - 45	(1)
5. 10 mile per hour pace speed (mph)	33 - 42	(1)
6. Percent in 10 miles per hour pace	83.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	4	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	0.82	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.
(2) MVMT[2] = million vehicle miles of travel
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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Colton Avenue	SEGMENT #32	DATE: 1/14/2022
LIMITS: b/t Grove Street and Lincoln Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	46-62	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	Y
12. Street illumination at intersections	Y (Partial)	Y
13. Two-way daily traffic volume (ADT)	7,942	(1)
14. Length of segment (miles)	0.39	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	47	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	42	(1)
4. Range of speeds (mph)	33 - 50	(1)
5. 10 mile per hour pace speed (mph)	36 - 45	(1)
6. Percent in 10 miles per hour pace	79.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.10	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Colton Avenue	SEGMENT #33	DATE: 1/14/2022
LIMITS: b/t Dearborn Avenue and Wabash Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	62	(1)
2. Number of through travel lanes by direction	1-2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	6,725	(1)
14. Length of segment (miles)	0.40	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	48	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	42	(1)
4. Range of speeds (mph)	30 - 53	(1)
5. 10 mile per hour pace speed (mph)	39 - 48	(1)
6. Percent in 10 miles per hour pace	67.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.42	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Crescent Avenue	SEGMENT #34	DATE: 1/14/2022
LIMITS: b/t Ramona Drive and Serpentine Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	32-44	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	1,618	(1)
14. Length of segment (miles)	1.01	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	27 - 47	(1)
5. 10 mile per hour pace speed (mph)	31 - 40	(1)
6. Percent in 10 miles per hour pace	78.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.21	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route / Bump	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Crestview Road	SEGMENT #35	DATE: 1/14/2022
LIMITS: b/t Ford Street to Buckingham Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P (Partial)	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	Y (Partial)
11. Street illumination midblock	N	Y (Partial)
12. Street illumination at intersections	N	Y (Partial)
13. Two-way daily traffic volume (ADT)	394	(1)
14. Length of segment (miles)	0.81	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	37	(1)
2. Average speed (mph)	31	(1)
3. 50th percentile speed (mph)	32	(1)
4. Range of speeds (mph)	16 - 43	(1)
5. 10 mile per hour pace speed (mph)	28 - 37	(1)
6. Percent in 10 miles per hour pace	58.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Cypress Avenue	SEGMENT #36	DATE: 1/14/2022
LIMITS: b/t Terracina Boulevard to Center Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	70	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential / Commercial	Residential / School
7. Does surrounding land use have direct access	N	Y
8. Frequency of driveways (frequent, rare, none)	Rare	Rare
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	N
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	5,521	(1)
14. Length of segment (miles)	1.14	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	43	(1)
2. Average speed (mph)	38	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	30 - 48	(1)
5. 10 mile per hour pace speed (mph)	35 - 44	(1)
6. Percent in 10 miles per hour pace	80.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	7	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.09	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Cypress Avenue	SEGMENT #37	DATE: 1/14/2022
LIMITS: b/t Center Street to Redlands Boulevard		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	70	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	Y (Partial)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	N	Y
12. Street illumination at intersections	N	Y
13. Two-way daily traffic volume (ADT)	7,497	(1)
14. Length of segment (miles)	0.77	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	44	(1)
2. Average speed (mph)	39	(1)
3. 50th percentile speed (mph)	39	(1)
4. Range of speeds (mph)	31 - 51	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	76.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	11	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.93	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	Y
6. Other	Bike Lanes / Bike Route	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Cypress Avenue	SEGMENT #38	DATE: 1/14/2022
LIMITS: b/t Redlands Boulevard to Citrus Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	57	(1)
2. Number of through travel lanes by direction	1-2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	N	Y
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	N
13. Two-way daily traffic volume (ADT)	7,574	(1)
14. Length of segment (miles)	0.57	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	43	(1)
2. Average speed (mph)	38	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	28 - 50	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	69.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	8	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.95	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	N
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

REGISTERED PROFESSIONAL ENGINEER
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TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

Prepared By: Michael Torres Reviewed By: Alex Tabrizi

CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Dearborn Street	SEGMENT #39	DATE: 1/14/2022
LIMITS: b/t 5th Avenue to Colton Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	62	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	4,498	(1)
14. Length of segment (miles)	0.90	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	43	(1)
2. Average speed (mph)	38	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	29 - 49	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	71.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Dearborn Street	SEGMENT #40	DATE: 1/14/2022
LIMITS: b/t Colton Avenue to Lugonia Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	Y (Partial)
13. Two-way daily traffic volume (ADT)	3,088	(1)
14. Length of segment (miles)	0.42	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	36	(1)
2. Average speed (mph)	32	(1)
3. 50th percentile speed (mph)	32	(1)
4. Range of speeds (mph)	24 - 43	(1)
5. 10 mile per hour pace speed (mph)	27 - 36	(1)
6. Percent in 10 miles per hour pace	78.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Dearborn Street	SEGMENT #41	DATE: 1/14/2022
LIMITS: b/t Lugonia Avenue to San Bernardino Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	N	(1)
8. Frequency of driveways (frequent, rare, none)	None	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	N
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	N
13. Two-way daily traffic volume (ADT)	1,656	(1)
14. Length of segment (miles)	0.42	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	48	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	30 - 54	(1)
5. 10 mile per hour pace speed (mph)	37 - 46	(1)
6. Percent in 10 miles per hour pace	64.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	N	(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Dearborn Street	SEGMENT #42	DATE: 1/14/2022
LIMITS: b/t San Bernardino Avenue to Sessums Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	48	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Agriculture	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	N
11. Street illumination midblock	N	Y
12. Street illumination at intersections	N	Y
13. Two-way daily traffic volume (ADT)	1,305	(1)
14. Length of segment (miles)	0.27	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	35	(1)
4. Range of speeds (mph)	23 - 48	(1)
5. 10 mile per hour pace speed (mph)	31 - 40	(1)
6. Percent in 10 miles per hour pace	63.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	3.61	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Elizabeth Street	SEGMENT #43	DATE: 1/14/2022
LIMITS: b/t Garden Street to Crescent Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	35	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	1,427	(1)
14. Length of segment (miles)	0.87	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	49	(1)
2. Average speed (mph)	43	(1)
3. 50th percentile speed (mph)	43	(1)
4. Range of speeds (mph)	31 - 55	(1)
5. 10 mile per hour pace speed (mph)	39 - 48	(1)
6. Percent in 10 miles per hour pace	67.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.81	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	Y	(1)
6. Other		
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Fern Avenue	SEGMENT #44	DATE: 1/14/2022
LIMITS: b/t Redlands Boulevard to Cajon Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	36	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	N	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	4,663	(1)
14. Length of segment (miles)	0.87	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	41	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	26 - 48	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	79.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Fern Avenue	SEGMENT #45	DATE: 1/14/2022
LIMITS: b/t Cajon Street to Center Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	60	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	4,021	(1)
14. Length of segment (miles)	0.41	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	38	(1)
2. Average speed (mph)	34	(1)
3. 50th percentile speed (mph)	34	(1)
4. Range of speeds (mph)	23 - 43	(1)
5. 10 mile per hour pace speed (mph)	30 - 39	(1)
6. Percent in 10 miles per hour pace	78.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.68	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Fern Avenue	SEGMENT #46	DATE: 1/14/2022
LIMITS: b/t Center Street to San Mateo Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	60	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	3,844	(1)
14. Length of segment (miles)	0.41	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	44	(1)
2. Average speed (mph)	39	(1)
3. 50th percentile speed (mph)	39	(1)
4. Range of speeds (mph)	28 - 50	(1)
5. 10 mile per hour pace speed (mph)	35 - 44	(1)
6. Percent in 10 miles per hour pace	66.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	N
2. School Crosswalk	Y	N
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Dip / Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Fern Avenue	SEGMENT #47	DATE: 1/14/2022
LIMITS: b/t San Mateo Street to Terracina Boulevard		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential / Commercial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	3,622	(1)
14. Length of segment (miles)	0.62	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	34	(1)
3. 50th percentile speed (mph)	34	(1)
4. Range of speeds (mph)	25 - 46	(1)
5. 10 mile per hour pace speed (mph)	29 - 38	(1)
6. Percent in 10 miles per hour pace	78.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	4	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.85	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

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REGISTERED PROFESSIONAL ENGINEER
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TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

Prepared By: Michael Torres Reviewed By: Alex Tabrizi

CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Fifth Avenue	SEGMENT #48	DATE: 1/14/2022
LIMITS: b/t Ford Street to Dearborn Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	62	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	Y (Partial)	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Residential / Open	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	N	Y
12. Street illumination at intersections	N	Y
13. Two-way daily traffic volume (ADT)	8,435	(1)
14. Length of segment (miles)	0.43	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	50	(1)
2. Average speed (mph)	45	(1)
3. 50th percentile speed (mph)	44	(1)
4. Range of speeds (mph)	35 - 56	(1)
5. 10 mile per hour pace speed (mph)	39 - 48	(1)
6. Percent in 10 miles per hour pace	71.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.61	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Fifth Avenue	SEGMENT #49	DATE: 1/14/2022
LIMITS: b/t Dearborn Street to Wabash Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	Y (Partial)	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	N
8. Frequency of driveways (frequent, rare, none)	Frequent	Rare
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	6,622	(1)
14. Length of segment (miles)	0.40	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	49	(1)
2. Average speed (mph)	44	(1)
3. 50th percentile speed (mph)	44	(1)
4. Range of speeds (mph)	34 - 55	(1)
5. 10 mile per hour pace speed (mph)	39 - 48	(1)
6. Percent in 10 miles per hour pace	74.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.85	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Ford Street	SEGMENT #50	DATE: 1/14/2022
LIMITS: b/t Citrus Avenue to Fifth Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	63	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	Y (Partial)	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	None
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	5,207	(1)
14. Length of segment (miles)	0.32	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	47	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	35 - 53	(1)
5. 10 mile per hour pace speed (mph)	36 - 45	(1)
6. Percent in 10 miles per hour pace	78.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.44	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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ROADWAY: Ford Street	SEGMENT #51	DATE: 1/14/2022
LIMITS: b/t Fifth Avenue to Reservoir Road		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	34	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential/ Open	(1)
7. Does surrounding land use have direct access	Y (Partial)	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	N
10. Sidewalks present	Y (Partial)	N
11. Street illumination midblock	Y (Partial)	N
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	7,687	(1)
14. Length of segment (miles)	0.45	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	45	(1)
2. Average speed (mph)	40	(1)
3. 50th percentile speed (mph)	40	(1)
4. Range of speeds (mph)	30 - 50	(1)
5. 10 mile per hour pace speed (mph)	37 - 46	(1)
6. Percent in 10 miles per hour pace	74.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	5	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	1.59	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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ROADWAY: Ford Street	SEGMENT #52	DATE: 1/14/2022
LIMITS: b/t Reservoir Road to Sunset Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Commercial / Open	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	N
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	8,954	(1)
14. Length of segment (miles)	0.36	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	48	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	40	(1)
4. Range of speeds (mph)	30 - 54	(1)
5. 10 mile per hour pace speed (mph)	35 - 44	(1)
6. Percent in 10 miles per hour pace	63.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	21	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	7.54	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Ford Street	SEGMENT #53	DATE: 1/14/2022
LIMITS: b/t Sunset Drive to Garden Hill Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	2,882	(1)
14. Length of segment (miles)	0.45	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	44	(1)
2. Average speed (mph)	40	(1)
3. 50th percentile speed (mph)	40	(1)
4. Range of speeds (mph)	31 - 50	(1)
5. 10 mile per hour pace speed (mph)	35 - 44	(1)
6. Percent in 10 miles per hour pace	74.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	Y	(1)
6. Other		(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Franklin Avenue	SEGMENT #54	DATE: 1/14/2022
LIMITS: b/t Eucalyptus Drive to Oak Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	0.39	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	677	(1)
14. Length of segment (miles)	0.38	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	36	(1)
2. Average speed (mph)	30	(1)
3. 50th percentile speed (mph)	30	(1)
4. Range of speeds (mph)	20 - 42	(1)
5. 10 mile per hour pace speed (mph)	23 - 32	(1)
6. Percent in 10 miles per hour pace	66.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Dip	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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ROADWAY: Franklin Avenue	SEGMENT #55	DATE: 1/14/2022
LIMITS: b/t Oak Street to Garden Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	25	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	N	Y
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	757	(1)
14. Length of segment (miles)	0.40	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	34	(1)
3. 50th percentile speed (mph)	34	(1)
4. Range of speeds (mph)	24 - 45	(1)
5. 10 mile per hour pace speed (mph)	30 - 39	(1)
6. Percent in 10 miles per hour pace	74.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	3.72	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Garden Street	SEGMENT #56	DATE: 1/14/2022
LIMITS: b/t Mariposa Drive to Cajon Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	51	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N / P	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	2,964	(1)
14. Length of segment (miles)	1.24	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	45	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	34 - 51	(1)
5. 10 mile per hour pace speed (mph)	37 - 46	(1)
6. Percent in 10 miles per hour pace	81.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.53	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	Y
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Grove Street	SEGMENT #57	DATE: 1/14/2022
LIMITS: b/t Highland Avenue to Citrus Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	Y (Partial)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	1,132	(1)
14. Length of segment (miles)	0.39	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	38	(1)
2. Average speed (mph)	33	(1)
3. 50th percentile speed (mph)	32	(1)
4. Range of speeds (mph)	24 - 43	(1)
5. 10 mile per hour pace speed (mph)	28 - 37	(1)
6. Percent in 10 miles per hour pace	72.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.57	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Grove Street	SEGMENT #58	DATE: 1/14/2022
LIMITS: b/t Citrus Avenue to Brockton Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	38	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	2,619	(1)
14. Length of segment (miles)	0.65	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	41	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	34	(1)
4. Range of speeds (mph)	25 - 49	(1)
5. 10 mile per hour pace speed (mph)	28 - 37	(1)
6. Percent in 10 miles per hour pace	63.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	1.82	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) MVMT[2] = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Highland Avenue	SEGMENT #59	DATE: 1/14/2022
LIMITS: b/t Ford Street to Cajon Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	1-2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y (Partial	Y
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential / Commercial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	Y
10. Sidewalks present	Y (Partial)	Y
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	5,125	(1)
14. Length of segment (miles)	0.95	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	49	(1)
2. Average speed (mph)	43	(1)
3. 50th percentile speed (mph)	43	(1)
4. Range of speeds (mph)	32 - 52	(1)
5. 10 mile per hour pace speed (mph)	40 - 49	(1)
6. Percent in 10 miles per hour pace	71.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	9	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.83	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y (Partial	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

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ROADWAY: Highland Avenue	SEGMENT #60	DATE: 1/14/2022
LIMITS: b/t Cajon Street to San Mateo Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	6,740	(1)
14. Length of segment (miles)	0.93	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	41	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	37	(1)
4. Range of speeds (mph)	27 - 47	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	75.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	10	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.59	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Highland Avenue	SEGMENT #61	DATE: 1/14/2022
LIMITS: b/t San Mateo Street to Serpentine Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	42	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	N	Y
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	1,655	(1)
14. Length of segment (miles)	0.19	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	31	(1)
2. Average speed (mph)	28	(1)
3. 50th percentile speed (mph)	27	(1)
4. Range of speeds (mph)	21 - 37	(1)
5. 10 mile per hour pace speed (mph)	23 - 32	(1)
6. Percent in 10 miles per hour pace	88.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Dip	(1)
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Judson Street	SEGMENT #62	DATE: 1/14/2022
LIMITS: b/t Citrus Avenue to Colton Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	62	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P (Partial)	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	N
8. Frequency of driveways (frequent, rare, none)	Frequent	Rare
9. Curb and gutter present	Y	Y (Partial)
10. Sidewalks present	Y (Partial)	Y
11. Street illumination midblock	Y (Partial)	Y
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	6,745	(1)
14. Length of segment (miles)	0.40	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	45	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	40	(1)
4. Range of speeds (mph)	31 - 51	(1)
5. 10 mile per hour pace speed (mph)	35 - 44	(1)
6. Percent in 10 miles per hour pace	80.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.42	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lane / Bike Route	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Judson Street	SEGMENT #63	DATE: 1/14/2022
LIMITS: b/t Colton Avenue to Lugonia Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	Y (Partial)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	N
13. Two-way daily traffic volume (ADT)	5,714	(1)
14. Length of segment (miles)	0.41	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	39	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	31 - 48	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	89.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.48	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes / Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Judson Street	SEGMENT #64	DATE: 1/14/2022
LIMITS: b/t Lugonia Avenue to Pioneer Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	44	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Res. / Com. / School	Residential
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	2,968	(1)
14. Length of segment (miles)	0.66	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	34	(1)
4. Range of speeds (mph)	27 - 47	(1)
5. 10 mile per hour pace speed (mph)	30 - 39	(1)
6. Percent in 10 miles per hour pace	77.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.05	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Lugonia Avenue	SEGMENT #65	DATE: 1/14/2022
LIMITS: b/t 1500' w/o Research Drive to California Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	80	(1)
2. Number of through travel lanes by direction	1-2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P (Partial) / N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	50	(1)
6. Surrounding land uses	Commercial / Industrial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	Y
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	786	(1)
14. Length of segment (miles)	0.78	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	54	(1)
2. Average speed (mph)	48	(1)
3. 50th percentile speed (mph)	47	(1)
4. Range of speeds (mph)	36 - 59	(1)
5. 10 mile per hour pace speed (mph)	43 - 52	(1)
6. Percent in 10 miles per hour pace	63.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.65	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	50	50
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Lugonia Avenue	SEGMENT #66	DATE: 1/14/2022
LIMITS: b/t California Street to Alabama Street (eastbound)		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	54	(1)
2. Number of through travel lanes by direction	1-2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	Y (Partial)	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Commercial / Industrial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	5,655	(1)
14. Length of segment (miles)	0.90	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	47	(1)
2. Average speed (mph)	43	(1)
3. 50th percentile speed (mph)	42	(1)
4. Range of speeds (mph)	32 - 54	(1)
5. 10 mile per hour pace speed (mph)	37 - 46	(1)
6. Percent in 10 miles per hour pace	72.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	8	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.57	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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STATE OF CALIFORNIA

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Lugonia Avenue	SEGMENT #67	DATE: 1/14/2022
LIMITS: b/t Alabama Street to Tennessee Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	70	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Retail	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	None	(1)
9. Curb and gutter present	Y	Y
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	15,112	(1)
14. Length of segment (miles)	0.46	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	44	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	34 - 49	(1)
5. 10 mile per hour pace speed (mph)	37 - 46	(1)
6. Percent in 10 miles per hour pace	86.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	10	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.57	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Lugonia Avenue	SEGMENT #68	DATE: 1/14/2022
LIMITS: b/t Tennessee Street to Texas Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	2	1
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	N	Y
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	17,580	(1)
14. Length of segment (miles)	0.36	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	43	(1)
2. Average speed (mph)	39	(1)
3. 50th percentile speed (mph)	39	(1)
4. Range of speeds (mph)	30 - 48	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	80.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	10	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.83	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	N	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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ROADWAY: Lugonia Avenue	SEGMENT #69	DATE: 1/14/2022
LIMITS: b/t Texas Street to Orange Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	60	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	N
12. Street illumination at intersections	Y (Partial)	N
13. Two-way daily traffic volume (ADT)	16,227	(1)
14. Length of segment (miles)	0.41	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	45	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	32 - 49	(1)
5. 10 mile per hour pace speed (mph)	36 - 45	(1)
6. Percent in 10 miles per hour pace	80.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	5	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.84	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Mariposa Drive	SEGMENT #70	DATE: 1/14/2022
LIMITS: b/t Wabash Avenue to Country Club Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	36	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	531	(1)
14. Length of segment (miles)	0.28	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	38	(1)
2. Average speed (mph)	33	(1)
3. 50th percentile speed (mph)	32	(1)
4. Range of speeds (mph)	21 - 46	(1)
5. 10 mile per hour pace speed (mph)	29 - 38	(1)
6. Percent in 10 miles per hour pace	63.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	N	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Mariposa Drive	SEGMENT #71	DATE: 1/14/2022
LIMITS: b/t Country Club Drive to Garden Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	32	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	2,933	(1)
14. Length of segment (miles)	0.56	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	37	(1)
4. Range of speeds (mph)	28 - 45	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	82.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.64	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	N	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Mariposa Drive	SEGMENT #72	DATE: 1/14/2022
LIMITS: b/t Halsey Street to Dwight Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	28	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	130	(1)
14. Length of segment (miles)	0.24	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	26	(1)
2. Average speed (mph)	20	(1)
3. 50th percentile speed (mph)	20	(1)
4. Range of speeds (mph)	10 - 32	(1)
5. 10 mile per hour pace speed (mph)	15 - 24	(1)
6. Percent in 10 miles per hour pace	61.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	25	25
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Mountain View Avenue	SEGMENT #73	DATE: 1/14/2022
LIMITS: b/t I-10 Freeway to Central Avenue (northbound)		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1-2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P / R (Partial)	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	45	
6. Surrounding land uses	Industrial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y (Partial)	Y
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	11,197	(1)
14. Length of segment (miles)	1.21	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	54	(1)
2. Average speed (mph)	49	(1)
3. 50th percentile speed (mph)	49	(1)
4. Range of speeds (mph)	40 - 59	(1)
5. 10 mile per hour pace speed (mph)	45 - 54	(1)
6. Percent in 10 miles per hour pace	74.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	8	(1)
5. Fatal accident rate per MVMT2		
6. Injury accident rate per MVMT2		
7. Property damage only accident rate per MVMT2		
8. Total accident rate per MVMT2	0.58	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)3	50	50
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: New York Street	SEGMENT #74	DATE: 1/14/2022
LIMITS: b/t Colton Avenue to Lugonia Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	36	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	40	
6. Surrounding land uses	Commercial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	Y
11. Street illumination midblock	Y (Partial)	Y
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	4,327	(1)
14. Length of segment (miles)	0.4	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	45	(1)
2. Average speed (mph)	40	(1)
3. 50th percentile speed (mph)	40	(1)
4. Range of speeds (mph)	30 - 52	(1)
5. 10 mile per hour pace speed (mph)	35 - 44	(1)
6. Percent in 10 miles per hour pace	74.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per MVMT2		
6. Injury accident rate per MVMT2		
7. Property damage only accident rate per MVMT2		
8. Total accident rate per MVMT2	0.65	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)3	40	40
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Olive Avenue	SEGMENT #75	DATE: 1/14/2022
LIMITS: b/t Citrus Avenue to San Mateo Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	56	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	
6. Surrounding land uses	Residential / Education	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	3,787	(1)
14. Length of segment (miles)	1.16	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	35	(1)
2. Average speed (mph)	32	(1)
3. 50th percentile speed (mph)	31	(1)
4. Range of speeds (mph)	25 - 41	(1)
5. 10 mile per hour pace speed (mph)	27 - 36	(1)
6. Percent in 10 miles per hour pace	91.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	5	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	1.11	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) MVMT[2] = million vehicle miles of travel

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TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Olive Avenue	SEGMENT #76	DATE: 1/14/2022
LIMITS: b/t San Mateo Street to Terracina Boulevard		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	4,343	(1)
14. Length of segment (miles)	0.7	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	37	(1)
4. Range of speeds (mph)	28 - 46	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	74.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.67	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Orange Street	SEGMENT #77	DATE: 1/14/2022
LIMITS: b/t Lugonia Avenue to Pioneer Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	1-2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N / R	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	12,289	(1)
14. Length of segment (miles)	0.66	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	43	(1)
2. Average speed (mph)	40	(1)
3. 50th percentile speed (mph)	40	(1)
4. Range of speeds (mph)	32 - 47	(1)
5. 10 mile per hour pace speed (mph)	36 - 45	(1)
6. Percent in 10 miles per hour pace	88.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	21	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.67	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other		(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Orange Street	SEGMENT #78	DATE: 1/14/2022
LIMITS: b/t Pioneer Avenue to Hubbard Court		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	60	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	N	(1)
8. Frequency of driveways (frequent, rare, none)	None	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	17,212	(1)
14. Length of segment (miles)	0.18	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	45	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	40	(1)
4. Range of speeds (mph)	31 - 49	(1)
5. 10 mile per hour pace speed (mph)	36 - 45	(1)
6. Percent in 10 miles per hour pace	82.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Orange Street	SEGMENT #79	DATE: 1/14/2022
LIMITS: b/t Hubbard Court to City Limits		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	24	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	50	(1)
6. Surrounding land uses	Open	(1)
7. Does surrounding land use have direct access	N	(1)
8. Frequency of driveways (frequent, rare, none)	None	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	17,324	(1)
14. Length of segment (miles)	0.25	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	54	(1)
2. Average speed (mph)	51	(1)
3. 50th percentile speed (mph)	51	(1)
4. Range of speeds (mph)	43 - 60	(1)
5. 10 mile per hour pace speed (mph)	46 - 55	(1)
6. Percent in 10 miles per hour pace	87%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.91	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	50	50
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Orange Tree Lane	SEGMENT #80	DATE: 1/14/2022
LIMITS: b/t California Street to Nevada Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	46	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Commercial	(1)
7. Does surrounding land use have direct access	Yes	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	Y
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	4,079	(1)
14. Length of segment (miles)	0.43	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	34	(1)
4. Range of speeds (mph)	25 - 46	(1)
5. 10 mile per hour pace speed (mph)	30 - 39	(1)
6. Percent in 10 miles per hour pace	76.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Orange Tree Lane	SEGMENT #81	DATE: 1/14/2022
LIMITS: b/t Nevada Street to Alabama Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	48	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Commercial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	3,298	(1)
14. Length of segment (miles)	0.42	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	44	(1)
2. Average speed (mph)	39	(1)
3. 50th percentile speed (mph)	39	(1)
4. Range of speeds (mph)	28 - 50	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	65.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.80	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Pacific Street	SEGMENT #82	DATE: 1/14/2022
LIMITS: b/t Crescent Avenue to Carob Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	36	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	25	
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Yes	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y (Partial)	Y
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	N
13. Two-way daily traffic volume (ADT)	332	(1)
14. Length of segment (miles)	0.26	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	34	(1)
2. Average speed (mph)	28	(1)
3. 50th percentile speed (mph)	28	(1)
4. Range of speeds (mph)	16 - 36	(1)
5. 10 mile per hour pace speed (mph)	27 - 36	(1)
6. Percent in 10 miles per hour pace	68.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	25	25
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Pacific Street	SEGMENT #83	DATE: 1/14/2022
LIMITS: b/t Carob Street to Ridge Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	24	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	20	
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Curb Only	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	217	(1)
14. Length of segment (miles)	0.41	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	30	(1)
2. Average speed (mph)	25	(1)
3. 50th percentile speed (mph)	24	(1)
4. Range of speeds (mph)	17 - 35	(1)
5. 10 mile per hour pace speed (mph)	20 - 29	(1)
6. Percent in 10 miles per hour pace	70.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	25.20	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	25	25
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Palm Avenue	SEGMENT #84	DATE: 1/14/2022
LIMITS: b/t Serpentine Drive to San Mateo Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	38	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	N	Y
12. Street illumination at intersections	N	Y
13. Two-way daily traffic volume (ADT)	1,103	(1)
14. Length of segment (miles)	0.15	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	37	(1)
2. Average speed (mph)	32	(1)
3. 50th percentile speed (mph)	33	(1)
4. Range of speeds (mph)	22 - 44	(1)
5. 10 mile per hour pace speed (mph)	28 - 37	(1)
6. Percent in 10 miles per hour pace	73.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	11.19	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Palm Avenue	SEGMENT #85	DATE: 1/14/2022
LIMITS: b/t San Mateo St. to Ford St.		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	50	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	Y
13. Two-way daily traffic volume (ADT)	4,445	(1)
14. Length of segment (miles)	2.12	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	43	(1)
2. Average speed (mph)	38	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	29 - 48	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	75.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	21	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.11	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Palmetto Avenue	SEGMENT #86	DATE: 1/14/2022
LIMITS: b/t Nevada Street to California Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	44	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Industrial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	2,475	(1)
14. Length of segment (miles)	0.4	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	45	(1)
2. Average speed (mph)	39	(1)
3. 50th percentile speed (mph)	39	(1)
4. Range of speeds (mph)	26 - 50	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	61.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Palmetto Avenue	SEGMENT #87	DATE: 1/14/2022
LIMITS: b/t California Street to Marigold Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	Not Posted	(1)
6. Surrounding land uses	Industrial	(1)
7. Does surrounding land use have direct access	Rare	(1)
8. Frequency of driveways (frequent, rare, none)		
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	N
11. Street illumination midblock	N	Y
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	1,484	(1)
14. Length of segment (miles)	0.30	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	44	(1)
2. Average speed (mph)	38	(1)
3. 50th percentile speed (mph)	37	(1)
4. Range of speeds (mph)	25 - 52	(1)
5. 10 mile per hour pace speed (mph)	35 - 44	(1)
6. Percent in 10 miles per hour pace	53.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents		(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Palo Alto Drive	SEGMENT #88	DATE: 1/14/2022
LIMITS: b/t Country Club Drive to Mirasol Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	N	Y
11. Street illumination midblock	N	Y
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	1,164	(1)
14. Length of segment (miles)	0.18	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	34	(1)
3. 50th percentile speed (mph)	34	(1)
4. Range of speeds (mph)	20 - 46	(1)
5. 10 mile per hour pace speed (mph)	31 - 40	(1)
6. Percent in 10 miles per hour pace	59.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents		(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	0.18
2. School Crosswalk	N	0.18
3. Vertical Curves	Y	0.18
4. Horizontal Curves	Y	0.18
5. School Speed Zone	N	0.18
6. Other		0.18
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Palo Alto Drive	SEGMENT #89	DATE: 1/14/2022
LIMITS: b/t Mirasol Drive to Sunset Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	44	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	25	
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	N	Y (Partial)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	807	(1)
14. Length of segment (miles)	0.58	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	36	(1)
2. Average speed (mph)	31	(1)
3. 50th percentile speed (mph)	32	(1)
4. Range of speeds (mph)	21 - 39	(1)
5. 10 mile per hour pace speed (mph)	26 - 35	(1)
6. Percent in 10 miles per hour pace	74.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents		(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Pennsylvania Avenue	SEGMENT #90	DATE: 1/14/2022
LIMITS: b/t Texas Street to Orange Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	30	
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	2,987	(1)
14. Length of segment (miles)	0.28	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	41	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	35	(1)
4. Range of speeds (mph)	24 - 48	(1)
5. 10 mile per hour pace speed (mph)	29 - 38	(1)
6. Percent in 10 miles per hour pace	63.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	4.50	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Pennsylvania Avenue	SEGMENT #91	DATE: 1/14/2022
LIMITS: b/t Orange Street to Church Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	
2. Number of through travel lanes by direction	1	
3. Median Type (P = Painted, R = Raised, N = No Median)	N	
4. On-street parking (Y/N)	Y (Partial)	
5. Speed limit (mph)	30	
6. Surrounding land uses	Residential	
7. Does surrounding land use have direct access	Y	
8. Frequency of driveways (frequent, rare, none)	Frequent	
9. Curb and gutter present	Y (Partial)	
10. Sidewalks present	Y	
11. Street illumination midblock	Y	
12. Street illumination at intersections	N	
13. Two-way daily traffic volume (ADT)	2,702	(1)
14. Length of segment (miles)	0.40	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	34	(1)
3. 50th percentile speed (mph)	33	(1)
4. Range of speeds (mph)	25 - 44	(1)
5. 10 mile per hour pace speed (mph)	29 - 38	(1)
6. Percent in 10 miles per hour pace	71.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	4	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	4.17	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	
2. School Crosswalk	Y	
3. Vertical Curves	N	
4. Horizontal Curves	N	
5. School Speed Zone	Y	
6. Other	Bike Route	
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Pennsylvania Avenue	SEGMENT #92	DATE: 1/14/2022
LIMITS: b/t Church Street to Universtity Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	N
13. Two-way daily traffic volume (ADT)	1,732	(1)
14. Length of segment (miles)	0.28	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	33	(1)
3. 50th percentile speed (mph)	33	(1)
4. Range of speeds (mph)	25 - 43	(1)
5. 10 mile per hour pace speed (mph)	27 - 36	(1)
6. Percent in 10 miles per hour pace	69.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Pennsylvania Avenue	SEGMENT #93	DATE: 1/14/2022
LIMITS: b/t University Street to Judson Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	Y
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	Frequent
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	Y (Partial)
12. Street illumination at intersections	Y	Y (Partial)
13. Two-way daily traffic volume (ADT)	1,524	(1)
14. Length of segment (miles)	0.53	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	25 - 50	(1)
5. 10 mile per hour pace speed (mph)	31 - 40	(1)
6. Percent in 10 miles per hour pace	67.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.32	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

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TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Pioneeer Avenue	SEGMENT #94	DATE: 1/14/2022
LIMITS: b/t Texas Street to Orange Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	38	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	N
8. Frequency of driveways (frequent, rare, none)	Frequent	None
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	Y (Partial)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	5,599	(1)
14. Length of segment (miles)	0.41	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	37	(1)
4. Range of speeds (mph)	28 - 46	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	72.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.98	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Pioneer Avenue	SEGMENT #95	DATE: 1/14/2022
LIMITS: b/t Orange Street to Occidental Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	Y (Partial)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	5,344	(1)
14. Length of segment (miles)	0.65	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	25 - 50	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	65.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	4	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.19	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Pioneer Avenue	SEGMENT #96	DATE: 1/14/2022
LIMITS: b/t Occidental Drive to Dearborn Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	32/44	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N/P (Partial)	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	None	(1)
7. Does surrounding land use have direct access	N	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	N
9. Curb and gutter present	Y (Partial)	Y (Partial)
10. Sidewalks present	Y (Partial)	Y (Partial)
11. Street illumination midblock	Y (Partial)	Y (Partial)
12. Street illumination at intersections	Y	N
13. Two-way daily traffic volume (ADT)	3,105	(1)
14. Length of segment (miles)	1.02	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	48	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	42	(1)
4. Range of speeds (mph)	30 - 55	(1)
5. 10 mile per hour pace speed (mph)	37 - 46	(1)
6. Percent in 10 miles per hour pace	58.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.62	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Pioneer Avenue	SEGMENT #97	DATE: 1/14/2022
LIMITS: b/t Texas Street to I-210 Freeway		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	42	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	Not Posted	(1)
6. Surrounding land uses	Educational	(1)
7. Does surrounding land use have direct access	N	Y
8. Frequency of driveways (frequent, rare, none)	None	Rare
9. Curb and gutter present	Y (Partial)	Y (Partial)
10. Sidewalks present	Y (Partial)	Y (Partial)
11. Street illumination midblock	N	Y
12. Street illumination at intersections	N	Y
13. Two-way daily traffic volume (ADT)	4,109	(1)
14. Length of segment (miles)	0.45	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	47	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	29 - 53	(1)
5. 10 mile per hour pace speed (mph)	36 - 45	(1)
6. Percent in 10 miles per hour pace	63.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.78	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	Y	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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ROADWAY: Redlands Boulevard	SEGMENT #98	DATE: 1/14/2022
LIMITS: b/t California Street to Texas Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	76	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P / R	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Commerical	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	9,160	(1)
14. Length of segment (miles)	1.97	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	46	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	31 - 53	(1)
5. 10 mile per hour pace speed (mph)	38 - 47	(1)
6. Percent in 10 miles per hour pace	71.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	59	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	3.11	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Redlands Boulevard	SEGMENT #99	DATE: 1/14/2022
LIMITS: b/t Texas Street to Eureka Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)		
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R/P	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Commercial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	12,597	(1)
14. Length of segment (miles)	0.23	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	41	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	28 - 45	(1)
5. 10 mile per hour pace speed (mph)	33 - 42	(1)
6. Percent in 10 miles per hour pace	74%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.94	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	
2. School Crosswalk	N	
3. Vertical Curves	N	
4. Horizontal Curves	Y	
5. School Speed Zone	N	
6. Other	Bike Route	
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Redlands Boulevard	SEGMENT #100	DATE: 1/14/2022
LIMITS: b/t Eureka Street to Citrus Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	92	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R	(1)
4. On-street parking (Y/N)	N	Y
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Commercial/Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	15,875	(1)
14. Length of segment (miles)	0.63	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	32	(1)
2. Average speed (mph)	29	(1)
3. 50th percentile speed (mph)	29	(1)
4. Range of speeds (mph)	23 - 40	(1)
5. 10 mile per hour pace speed (mph)	24 - 33	(1)
6. Percent in 10 miles per hour pace	86.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	18	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.87	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Redlands Boulevard	SEGMENT #101	DATE: 1/14/2022
LIMITS: Citrus Avenue to Highland Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	88	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential/Commercial	(1)
7. Does surrounding land use have direct access	N	Y
8. Frequency of driveways (frequent, rare, none)	None	Rare
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	N	Y
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	15,253	(1)
14. Length of segment (miles)	0.95	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	37	(1)
4. Range of speeds (mph)	26 - 48	(1)
5. 10 mile per hour pace speed (mph)	33 - 42	(1)
6. Percent in 10 miles per hour pace	73.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	18	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.23	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Redlands Boulevard	SEGMENT #102	DATE: 1/14/2022
LIMITS: Highland Avenue to Ford Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	R	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	50	(1)
6. Surrounding land uses	None	(1)
7. Does surrounding land use have direct access	N	(1)
8. Frequency of driveways (frequent, rare, none)	None	(1)
9. Curb and gutter present	N	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	Y
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	13,024	(1)
14. Length of segment (miles)	0.52	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	55	(1)
2. Average speed (mph)	50	(1)
3. 50th percentile speed (mph)	50	(1)
4. Range of speeds (mph)	37 - 62	(1)
5. 10 mile per hour pace speed (mph)	45 - 54	(1)
6. Percent in 10 miles per hour pace	69.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.16	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	50	50
MVMT = million vehicle miles of travel		

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REGISTERED PROFESSIONAL ENGINEER
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TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

Prepared By: Nhi Ly Reviewed By: Alex Tabrizi

CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Reservoir Road	SEGMENT #103	DATE: 1/14/2022
LIMITS: Ford Street to Wabash Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	36	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Residential	None
7. Does surrounding land use have direct access	Y	N
8. Frequency of driveways (frequent, rare, none)	Rare	N
9. Curb and gutter present	Y (Partial)	Y
10. Sidewalks present	N	Y
11. Street illumination midblock	N	Y
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	2,660	(1)
14. Length of segment (miles)	0.34	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	53	(1)
2. Average speed (mph)	47	(1)
3. 50th percentile speed (mph)	47	(1)
4. Range of speeds (mph)	36 - 59	(1)
5. 10 mile per hour pace speed (mph)	43 - 52	(1)
6. Percent in 10 miles per hour pace	65.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.60	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	50	50
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Rossmont Drive	SEGMENT #104	DATE: 1/14/2022
LIMITS: Garden Street to Sunset Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	23	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	25	
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	Rare
9. Curb and gutter present	Y	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	921	(1)
14. Length of segment (miles)	0.36	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	22 - 49	(1)
5. 10 mile per hour pace speed (mph)	29 - 38	(1)
6. Percent in 10 miles per hour pace	62.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	25	25
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: San Bernardino Avenue	SEGMENT #105	DATE: 1/14/2022
LIMITS: Tennessee Street to Orange Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	78	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	45	
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	12,899	(1)
14. Length of segment (miles)	0.88	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	48	(1)
2. Average speed (mph)	43	(1)
3. 50th percentile speed (mph)	43	(1)
4. Range of speeds (mph)	34 - 56	(1)
5. 10 mile per hour pace speed (mph)	38 - 47	(1)
6. Percent in 10 miles per hour pace	74.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	10	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	0.88	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lane	(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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(2) MVMT[2] = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: San Bernadino Avenue	SEGMENT #106	DATE: 1/14/2022
LIMITS: Orange Street to University Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	N
8. Frequency of driveways (frequent, rare, none)	Rare	None
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	Y (Partial)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	10,147	(1)
14. Length of segment (miles)	0.78	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	44	(1)
2. Average speed (mph)	40	(1)
3. 50th percentile speed (mph)	40	(1)
4. Range of speeds (mph)	29 - 51	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	73.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	8	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.02	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Lane	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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ROADWAY: San Bernardino Ave	SEGMENT #107	DATE: 1/14/2022
LIMITS: University Street to Wabash Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	37-64	(1)
2. Number of through travel lanes by direction	1	1-2
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	45	
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	N	(1)
8. Frequency of driveways (frequent, rare, none)	None	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	7,117	(1)
14. Length of segment (miles)	1.53	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	46	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	42	(1)
4. Range of speeds (mph)	31 - 54	(1)
5. 10 mile per hour pace speed (mph)	37 - 46	(1)
6. Percent in 10 miles per hour pace	74.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	6	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.53	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lane / Bike Route	(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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ROADWAY: San Bernardino Avenue	SEGMENT #108	DATE: 1/14/2022
LIMITS: Mountain View Avenue to California Street		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	105	(1)
2. Number of through travel lanes by direction	3	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P	(1)
4. On-street parking (Y/N)	N	Y
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Industrial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	13,197	(1)
14. Length of segment (miles)	0.9	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	53	(1)
2. Average speed (mph)	47	(1)
3. 50th percentile speed (mph)	47	(1)
4. Range of speeds (mph)	33 - 58	(1)
5. 10 mile per hour pace speed (mph)	45 - 54	(1)
6. Percent in 10 miles per hour pace	61.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.25	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.44)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	50	50
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: San Mateo Street	SEGMENT #109	DATE: 1/14/2022
LIMITS: Brookside Avenue to Fern Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	9,701	(1)
14. Length of segment (miles)	0.4	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	27 - 47	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	82.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.87	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Route	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: San Mateo Street	SEGMENT #110	DATE: 1/14/2022
LIMITS: Fern Avenue to Highland Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	1-2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential / Educational	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y (Partial)	Y
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	7,405	(1)
14. Length of segment (miles)	0.66	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	26 - 47	(1)
5. 10 mile per hour pace speed (mph)	33 - 42	(1)
6. Percent in 10 miles per hour pace	85.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	5	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.06	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	Y	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: San Timoteo Canyon Road	SEGMENT #111	DATE: 1/14/2022
LIMITS: Fern Avenue to Barton Road		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	22	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	30 / 45	35
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	N	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	Y
13. Two-way daily traffic volume (ADT)	8,612	(1)
14. Length of segment (miles)	1.22	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	47	(1)
2. Average speed (mph)	42	(1)
3. 50th percentile speed (mph)	42	(1)
4. Range of speeds (mph)	30 - 53	(1)
5. 10 mile per hour pace speed (mph)	38 - 47	(1)
6. Percent in 10 miles per hour pace	70.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	15	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.39	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Sunset Drive	SEGMENT #112	DATE: 1/14/2022
LIMITS: Vinton Way to Alta Vista Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	28-64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	867	(1)
14. Length of segment (miles)	0.93	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	44	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	20 - 51	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	55.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	3.70	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

REGISTERED PROFESSIONAL ENGINEER
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TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

Prepared By: Michael Torres Reviewed By: Alex Tabrizi

CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Sunset Drive	SEGMENT #113	DATE: 1/14/2022
LIMITS: Alta Vista Drive to Panorama Point		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	28	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	25 / 30	(1)
6. Surrounding land uses	Residential / Commercial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	517	(1)
14. Length of segment (miles)	0.47	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	37	(1)
2. Average speed (mph)	31	(1)
3. 50th percentile speed (mph)	31	(1)
4. Range of speeds (mph)	18 - 43	(1)
5. 10 mile per hour pace speed (mph)	26 - 35	(1)
6. Percent in 10 miles per hour pace	66.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	4.48	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Sunset Drive	SEGMENT #114	DATE: 1/14/2022
LIMITS: Serpentine Road to Vinton Way		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	24-44	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	25	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	Y (Partial)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	725	(1)
14. Length of segment (miles)	3.09	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	31	(1)
2. Average speed (mph)	27	(1)
3. 50th percentile speed (mph)	27	(1)
4. Range of speeds (mph)	20 - 37	(1)
5. 10 mile per hour pace speed (mph)	24 - 33	(1)
6. Percent in 10 miles per hour pace	78.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.84	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	25	25
MVMT = million vehicle miles of travel		

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ROADWAY: Sunset Drive	SEGMENT #115	DATE: 1/14/2022
LIMITS: Panorama Point to Franklin Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	25	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	Y (Partial)
10. Sidewalks present	Y (Partial)	Y
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	1,102	(1)
14. Length of segment (miles)	1.94	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	39	(1)
2. Average speed (mph)	33	(1)
3. 50th percentile speed (mph)	33	(1)
4. Range of speeds (mph)	21 - 46	(1)
5. 10 mile per hour pace speed (mph)	30 - 39	(1)
6. Percent in 10 miles per hour pace	65.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	13	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	5.78	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Sunnyside Avenue	SEGMENT #116	DATE: 1/14/2022
LIMITS: Fern Avenue to Cypress Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	22	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	20	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Curb Only	N
10. Sidewalks present	N	(1)
11. Street illumination midblock	N	(1)
12. Street illumination at intersections	N	(1)
13. Two-way daily traffic volume (ADT)	485	(1)
14. Length of segment (miles)	0.16	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	29	(1)
2. Average speed (mph)	25	(1)
3. 50th percentile speed (mph)	24	(1)
4. Range of speeds (mph)	18 - 35	(1)
5. 10 mile per hour pace speed (mph)	20 - 29	(1)
6. Percent in 10 miles per hour pace	81.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	25	25
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Sunnyside Avenue	SEGMENT #117	DATE: 1/14/2022
LIMITS: Cypress Avenue to Smiley Heights Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	36	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	25	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	402	(1)
14. Length of segment (miles)	0.28	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	30	(1)
2. Average speed (mph)	26	(1)
3. 50th percentile speed (mph)	26	(1)
4. Range of speeds (mph)	19 - 35	(1)
5. 10 mile per hour pace speed (mph)	22 - 31	(1)
6. Percent in 10 miles per hour pace	84.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		(1)
E. Recommended speed limit (mph)[3]	25	25
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Tennessee Street and San Mateo Street	SEGMENT #118	DATE: 1/14/2022
LIMITS: Colton Avenue to Brookside Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Commercial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	11,194	(1)
14. Length of segment (miles)	0.93	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	43	(1)
2. Average speed (mph)	40	(1)
3. 50th percentile speed (mph)	40	(1)
4. Range of speeds (mph)	33 - 49	(1)
5. 10 mile per hour pace speed (mph)	35 - 44	(1)
6. Percent in 10 miles per hour pace	88.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	17	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.62	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	Y	(1)
6. Other	Railroad / Bike Route	(1)
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Terrancina Boulevard	SEGMENT #119	DATE: 1/14/2022
LIMITS: Barton Road to Olive Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	56	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	N
11. Street illumination midblock	Y	Y (Partial)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	9,075	(1)
14. Length of segment (miles)	0.68	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	50	(1)
2. Average speed (mph)	45	(1)
3. 50th percentile speed (mph)	45	(1)
4. Range of speeds (mph)	36 - 56	(1)
5. 10 mile per hour pace speed (mph)	41 -50	(1)
6. Percent in 10 miles per hour pace	72%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	0.50	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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(2) MVMT[2] = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Terrancina Boulevard	SEGMENT #120	DATE: 1/14/2022
LIMITS: Olive Avenue to Cypress Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	72	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Commercial / Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	N
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	8,379	(1)
14. Length of segment (miles)	0.40	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	41	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	35	(1)
4. Range of speeds (mph)	25 - 45	(1)
5. 10 mile per hour pace speed (mph)	30 - 39	(1)
6. Percent in 10 miles per hour pace	69.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	7	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.35	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Bike Lanes	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Texas Street	SEGMENT #121	DATE: 1/14/2022
LIMITS: Redlands Boulevard to Lugonia Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40	(1)
2. Number of through travel lanes by direction	1-2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N / R	(1)
4. On-street parking (Y/N)	Y (Patrial)	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Comm. / Retail / Res.	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	N
13. Two-way daily traffic volume (ADT)	8,781	(1)
14. Length of segment (miles)	0.76	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	42	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	27 - 46	(1)
5. 10 mile per hour pace speed (mph)	33 - 42	(1)
6. Percent in 10 miles per hour pace	75.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	27	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	4.11	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	N
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	Y	(1)
6. Other	Railroad	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) $MVMT^2$ = million vehicle miles of travel

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TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

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CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Texas Street	SEGMENT #122	DATE: 1/14/2022
LIMITS: Lugonia Avenue to San Bernardino Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	26-64	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	40	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	Y
10. Sidewalks present	Y	Y (Partial)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	4,724	(1)
14. Length of segment (miles)	0.40	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	35	(1)
4. Range of speeds (mph)	25 - 46	(1)
5. 10 mile per hour pace speed (mph)	29 - 38	(1)
6. Percent in 10 miles per hour pace	75.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.79	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Texas Street	SEGMENT #123	DATE: 1/14/2022
LIMITS: b/t San Bernardino Avenue and Domestic Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	38-62	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	P (Partial)	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential	Education
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (partial)	(1)
10. Sidewalks present	Y (partial)	(1)
11. Street illumination midblock	Y	Y (Partial)
12. Street illumination at intersections	Y	Y
13. Two-way daily traffic volume (ADT)	4,134	(1)
14. Length of segment (miles)	0.41	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	41	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	35	(1)
4. Range of speeds (mph)	23 - 45	(1)
5. 10 mile per hour pace speed (mph)	32 - 41	(1)
6. Percent in 10 miles per hour pace	66.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	3	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: University Street	SEGMENT #124	DATE: 1/14/2022
LIMITS: b/t Cypress Avenue and Colton Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	62	(1)
2. Number of through travel lanes by direction	1/2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	30	(1)
6. Surrounding land uses	Residential/Education	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	N	Y
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	17,046	(1)
14. Length of segment (miles)	0.64	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	27 - 46	(1)
5. 10 mile per hour pace speed (mph)	31 - 40	(1)
6. Percent in 10 miles per hour pace	78.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	29	(1)
5. Fatal accident rate per MVMT[2]		
6. Injury accident rate per MVMT[2]		
7. Property damage only accident rate per MVMT[2]		
8. Total accident rate per MVMT[2]	2.75	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other	Railroad, SB Parallel Parking	(1)
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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(2) MVMT[2] = million vehicle miles of travel

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: University Street	SEGMENT #125	DATE: 1/14/2022
LIMITS: b/t Colton Avenue and Lugiona Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	38-62	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential/Education	Residential
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	11,122	(1)
14. Length of segment (miles)	0.40	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	40	(1)
2. Average speed (mph)	36	(1)
3. 50th percentile speed (mph)	36	(1)
4. Range of speeds (mph)	28 - 45	(1)
5. 10 mile per hour pace speed (mph)	31 - 40	(1)
6. Percent in 10 miles per hour pace	82.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	9	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.25	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

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ROADWAY: University Street	SEGMENT #126	DATE: 1/14/2022
LIMITS: b/t Lugiona Avenue and San Bernardino Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	38-40	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	25	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	N
12. Street illumination at intersections	Y	N
13. Two-way daily traffic volume (ADT)	1,519	(1)
14. Length of segment (miles)	0.46	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	34	(1)
2. Average speed (mph)	29	(1)
3. 50th percentile speed (mph)	29	(1)
4. Range of speeds (mph)	20 - 42	(1)
5. 10 mile per hour pace speed (mph)	20 - 32	(1)
6. Percent in 10 miles per hour pace	68.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	1.58	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	25	25
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Via Vista Drive	SEGMENT #127	DATE: 1/14/2022
LIMITS: b/t Country Club Drive and Helena Lane		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	EB	WB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	38	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y	(1)
5. Speed limit (mph)	25	(1)
6. Surrounding land uses	Residential	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Frequent	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	N	Y (Partial)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	274	(1)
14. Length of segment (miles)	0.64	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	34	(1)
2. Average speed (mph)	27	(1)
3. 50th percentile speed (mph)	28	(1)
4. Range of speeds (mph)	13 - 40	(1)
5. 10 mile per hour pace speed (mph)	23 - 32	(1)
6. Percent in 10 miles per hour pace	59.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	30	30
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Wabash Avenue	SEGMENT #128	DATE: 1/14/2022
LIMITS: b/t Fifth Avenue to Citrus Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	46-64	(1)
2. Number of through travel lanes by direction	1-2	1
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	Y
5. Speed limit (mph)	45	(1)
6. Surrounding land uses	Residential / Open Space	Residential
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	4,167	(1)
14. Length of segment (miles)	0.39	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	51	(1)
2. Average speed (mph)	45	(1)
3. 50th percentile speed (mph)	44	(1)
4. Range of speeds (mph)	33 - 55	(1)
5. 10 mile per hour pace speed (mph)	42 - 51	(1)
6. Percent in 10 miles per hour pace	61.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	0	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.00	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.32)	N	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	45	45
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Wabash Avenue	SEGMENT #129	DATE: 1/14/2022
LIMITS: b/t Citrus Avenue to Colton Avenue		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	64	(1)
2. Number of through travel lanes by direction	2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	Y (Partial)	(1)
5. Speed limit (mph)	35	(1)
6. Surrounding land uses	Residential / Commercial	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	Frequent
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	5,805	(1)
14. Length of segment (miles)	0.41	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	47	(1)
2. Average speed (mph)	41	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	30 - 53	(1)
5. 10 mile per hour pace speed (mph)	36 - 45	(1)
6. Percent in 10 miles per hour pace	65.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.47	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	Y	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

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SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Wabash Avenue	SEGMENT #130	DATE: 1/14/2022
LIMITS: b/t Colton Avenue to Sessums Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	26-64	(1)
2. Number of through travel lanes by direction	1-2	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	Painted (Partial)	(1)
4. On-street parking (Y/N)	Painted (Partial)	(1)
5. Speed limit (mph)	35 - 40	(1)
6. Surrounding land uses	Retail/ Res. / Ind.	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y	(1)
12. Street illumination at intersections	Y	(1)
13. Two-way daily traffic volume (ADT)	8,942	(1)
14. Length of segment (miles)	1.30	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	45	(1)
2. Average speed (mph)	40	(1)
3. 50th percentile speed (mph)	41	(1)
4. Range of speeds (mph)	31 - 52	(1)
5. 10 mile per hour pace speed (mph)	36 - 45	(1)
6. Percent in 10 miles per hour pace	71.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	2	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	0.17	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	N	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	N	(1)
4. Horizontal Curves	N	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

REGISTERED PROFESSIONAL ENGINEER
MOHAMMAD ALI TABRIZI
TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

Prepared By: Michael Torres Reviewed By: Alex Tabrizi

CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Wabash Avenue	SEGMENT #131	DATE: 1/14/2022
LIMITS: b/t Fifth Avenue to Panorama Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	24-50	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	(1)
5. Speed limit (mph)	Not Posted	(1)
6. Surrounding land uses	Residential / Open	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	Frequent
9. Curb and gutter present	Y (Partial)	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	N	Y (Partial)
12. Street illumination at intersections	N	Y (Partial)
13. Two-way daily traffic volume (ADT)	672	(1)
14. Length of segment (miles)	0.70	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	43	(1)
2. Average speed (mph)	37	(1)
3. 50th percentile speed (mph)	38	(1)
4. Range of speeds (mph)	24 - 47	(1)
5. 10 mile per hour pace speed (mph)	34 - 43	(1)
6. Percent in 10 miles per hour pace	61.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	1	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	2.18	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	N	(1)
2. School Crosswalk	N	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	N	(1)
6. Other		
E. Recommended speed limit (mph)[3]	40	40
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

REGISTERED PROFESSIONAL ENGINEER
MOHAMMAD ALI TABRIZI
TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

Prepared By: Michael Torres Reviewed By: Alex Tabrizi

CITY OF REDLANDS TRAFFIC SURVEY

SPEED STUDY TRAFFIC CONDITIONS FORM

ROADWAY: Wabash Avenue	SEGMENT #132	DATE: 1/14/2022
LIMITS: b/t Reservoir Road to Palo Alto Drive		JOB #: 2531-2021-01
DIRECTION OF TRAVEL:	NB	SB
A. Roadway Characteristics		
1. Total Curb to Curb Street width (feet)	40-44	(1)
2. Number of through travel lanes by direction	1	(1)
3. Median Type (P = Painted, R = Raised, N = No Median)	N	(1)
4. On-street parking (Y/N)	N	Y
5. Speed limit (mph)	Not Posted	(1)
6. Surrounding land uses	Residential / Open	(1)
7. Does surrounding land use have direct access	Y	(1)
8. Frequency of driveways (frequent, rare, none)	Rare	(1)
9. Curb and gutter present	Y	(1)
10. Sidewalks present	Y (Partial)	(1)
11. Street illumination midblock	Y (Partial)	(1)
12. Street illumination at intersections	Y (Partial)	(1)
13. Two-way daily traffic volume (ADT)	1,362	(1)
14. Length of segment (miles)	0.88	(1)
B. Speed Characteristics		
1. 85th percentile speed (mph)	38	(1)
2. Average speed (mph)	35	(1)
3. 50th percentile speed (mph)	35	(1)
4. Range of speeds (mph)	28 - 43	(1)
5. 10 mile per hour pace speed (mph)	31 - 40	(1)
6. Percent in 10 miles per hour pace	85.0%	(1)
C. Accident Analysis for preceding 3 years		
1. Number of fatal accidents		
2. Number of injury accidents		
3. Number of property damage only accidents		
4. Total number of accidents	4	(1)
5. Fatal accident rate per $MVMT^2$		
6. Injury accident rate per $MVMT^2$		
7. Property damage only accident rate per $MVMT^2$		
8. Total accident rate per $MVMT^2$	3.34	(1)
9. Is accident rate higher than Caltrans value? (Value = 1.60)	Y	(1)
D. Other Special Conditions		
1. Crosswalk	Y	(1)
2. School Crosswalk	Y	(1)
3. Vertical Curves	Y	(1)
4. Horizontal Curves	Y	(1)
5. School Speed Zone	Y	(1)
6. Other		
E. Recommended speed limit (mph)[3]	35	35
MVMT = million vehicle miles of travel		

(1) Data in left column is for both directions.

(2) $MVMT^2$ = million vehicle miles of travel

(3) The recommended speed limit is based upon the roadway segment being located in a residential district and provisions 22357 (a) of the California Vehicle Code that permits a local agency to increase the prima facie above 25 mph to facilitate the orderly movement of traffic and is reasonable and safe.

REGISTERED PROFESSIONAL ENGINEER
MOHAMMAD ALI TABRIZI
TR 2722
EXP. 3/31/23
TRAFFIC
STATE OF CALIFORNIA

Prepared By: Michael Torres Reviewed By: Alex Tabrizi

City Council Meeting **L. 1.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Discussion and possible action relating to the cancellation of the January 3, 2023, regular meeting of the City Council (Mayor Barich)

MOTION:

I move to approve the cancellation of the January 3, 2023, regular meeting of the City Council.

DISCUSSION:

With City Council concurrence, I recommend the cancellation of the January 3, 2023, regular meeting of the City Council in light of the holiday closure. The next regular meeting will be held on January 17, 2023.

SUBMITTED BY:
Mayor Paul T. Barich

City Council Meeting **L. 2.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Consideration of Ordinance No. 2952 amending Chapter 2.16 of the Redlands Municipal Code relating to the establishment of a business preference program for City procurement (Council Member Gallagher)

MOTION:

Should the City Council concur with Council Member Gallagher's recommendation, the following motion is provided.

Mayor requests the City Clerk to read the title of Ordinance No. 2952.

I move to waive further reading of, and introduce Ordinance No. 2952.

RECOMMENDATION:

It is recommended by Council Member Gallagher that the Council consider Ordinance No. 2952 amending Chapter 2.16 of the Redlands Municipal Code relating to the establishment of a business preference program for City Procurement.

DISCUSSION:

Currently, the Redlands Municipal Code (RMC) offers a 1% local preference on procured goods, equipment and services that result in the generation of sales tax dollars and have a value of under $30,000. The reasoning behind this local preference is that it is based on the percentage of sales tax that would come back to the City. Many municipalities use this nexus to determine their local preferences. For procurement where sales tax is not generated, the RMC allows for an award to the local bidder, provided the quality and price are equal to another bidder(s).

In 2011, the City adopted Ordinance No. 2761 establishing an 8% local preference and a 2% County preference for a period of four years for procured goods, equipment and services having a value of $30,000 or more, and for public project contracts having a value of less than $30,000. To assist local economic recovery and promote business retention within the City, Council Member Gallagher is interested in the City providing the increased local and County preference once again.

Similar to the 2011 Ordinance, staff has prepared Ordinance No. 2952 that includes an 8% local preference applicable to businesses operating within the City of Redlands for procurement of Supplies, Materials, Equipment and Specialized Goods. The ordinance also provides for a 2% preference for County of San Bernardino businesses for procurement of Supplies, Materials, Equipment and Specialized Goods. Ordinance No. 2952 also provides a four-year sunset provision for the increased local preference, with an end-date of December 31, 2026.

The existing 1% local preference, applicable to procurement of Supplies, Materials, Equipment And Specialized Goods that generate sales tax dollars, would be reinstated on January 1, 2027.

SUBMITTED BY:

Janice McConnell, Assistant City Manager

REVIEWED BY:

Charles M. Duggan Jr., City Manager
Yvette M. Abich Garcia, City Attorney
Danielle Garcia, Management Services/Finance Director
Dana Abramovitz-Daniel, Procurement Manager

Fiscal Impact

Discussion:

The exact fiscal impact associated with local preference cannot be determined. An 8% local preference for Redlands' businesses and a 2% preference for County businesses could potentially cause the City to incur added costs of up to eight cents or two cents on the dollar, but that spending would remain within the local economy.

Attachments

1. Ordinance No. 2952
2. Ordinance No. 2952 Legislative

ORDINANCE NO. 2952

AN ORDINANCE OF THE CITY OF REDLANDS AMENDING CHAPTER 2.16 OF THE REDLANDS MUNICIPAL CODE TO ESTABLISH A LOCAL BUSINESS PREFERENCE PROGRAM FOR THE CITY'S PROCUREMENT OF SUPPLIES, MATERIALS, EQUIPMENT AND SPECIALIZED GOODS

THE CITY COUNCIL OF THE CITY OF REDLANDS DOES ORDAIN AS FOLLOWS:

Section 1. Section 2.16.220 of the Redlands Municipal Code, entitled "Business Preferences," is hereby amended to read as follows:

"2.16.220 Business Preferences:

In administration of competitive procurement pursuant to this chapter, the Purchasing Agent shall be authorized to give such preferences for supplies, materials, equipment, and specialized goods as general law cities are permitted or required to give by applicable State or Federal law, or as provided for in this chapter.

A. Local Business Preference: To promote business retention within the city and the economic health of the city and to encourage local business participation in the procurement process, the purchasing agent, in determining the lowest responsible bidder for contracts for supplies, materials, equipment and specialized goods shall grant an eight percent (8%) Local Business Preference to Local Businesses. For purposes of this chapter, a Local Business is defined as a business possessing a valid Redlands Business License and having its principal business operation located in the City of Redlands.

B. Business Preferences: To promote the economic health of the County of San Bernardino and to encourage County business participation in the procurement process, the purchasing agent, in determining the lowest responsible bidder for contracts for supplies, materials, equipment and specialized goods shall grant a two percent (2%) County Business Preference to County Businesses. For the purposes of this chapter, a County Business is defined as a business possessing a valid Redlands Business License and having its principal business operation located within the County of San Bernardino and outside of the City of Redlands.

C. Application to Bids: When applying the Local Business Preference or County Business Preference to a bid, the purchasing agent shall apply the preference to the bid price solely for bid evaluation purposes such that the total price bid by a Local Business shall be reduced by eight percent (8%) of the amount bid by the Local Business, and by two percent (2%) to the County of San Bernardino Business and the reduced bid shall be deemed the amount bid by that bidder. The contract price shall in all events be the amount bid by the successful bidder awarded the contract.

D. Change in Preferences: The Local Business and County Business preferences established by this Chapter shall terminate on December 31, 2026. Commencing on January 1, 2027, to further promote business retention within the city and the economic health of the city and to encourage local participation in the procurement process, the purchasing agent, in determining the lowest responsible bidder for contracts for supplies, materials, equipment and specialized goods having a value of $30,000 or less, may take into consideration the one percent (1%) sales tax which would be returned to the city as a result of the bid award. For procurement where sales tax would not be generated as a result of the bid award and where the quality and price are equal to another bidder or bidders, the local vendor may be given the bid award.

E. Recycled Goods: Whenever practicable, all City departments shall use recycled content products and recycled materials to meet their needs. This subsection is enacted to facilitate compliance with State requirements and to foster the development of new, improved markets for recycled products.

1. Definitions: For purposes of this subsection B, the following words shall have the meanings ascribed to them:

   POSTCONSUMER RECYCLED MATERIALS: A finished material or product that has served its intended use and would normally be disposed of as solid waste. Examples of postconsumer recovered materials include, but are not limited to, old newspaper, office paper, green waste (yard waste), steel, glass, aluminum cans, plastic bottles, oil, asphalt, concrete and tires.

   PRACTICABLE: Available within a reasonable time period; the recycled product shall be of equal or better quality or value at either no or minimal additional cost and subject to consideration of product durability as a criterion of the cost or value of the product.

   PRECONSUMER: Materials or byproducts generated after manufacturing of a product is completed, but before the product reaches the consumer. Examples of pre-consumer recovered materials include, but are not limited to, obsolete inventories of finished goods, rejected unused stock and paper wastes generated during printing, cutting and other conversion operations.

   RECYCLED MATERIAL: Waste material and byproducts that have been recovered or diverted from the solid waste stream and can be utilized in place of raw or virgin material in a product. Recycled content materials may consist of material derived from postconsumer waste, manufacturing waste, industrial scrap, agricultural waste and other items, all of which can be used in the manufacture of new products.

2. City Departments' Procurement Of Recycled Content Products:

   a. All departments shall use recycled content products whenever practicable. Special emphasis shall be placed on the purchase of products manufactured with postconsumer recycled materials.

b. Whenever practicable, recycled materials shall be procured and used in City operations (e.g., recycled paper shall be used in copy machines and for printing purposes by departments).

c. All departments may require procurement of designated recycled content products above levels required by this subsection.

d. The City shall require its contractors and consultants to use recycled content products in fulfilling contractual obligations whenever practical.

e. The City shall promote the use of recycled content products publicizing its procurement policy whenever practicable (e.g., use of recycling symbol and statement on recycled content products).

f. A life cycle cost analysis may be an appropriate tool for departments to use when evaluating purchasing alternatives. Life cycle cost should reflect the annual cost of the product calculated over the life of the product and should consider final costs, not just initial up-front costs. A life cycle cost analysis may include factors such as capital costs, installation costs, maintenance costs, energy and other operating costs, and disposal costs which may utilize the "best value" procurement method.

g. The City shall procure recycled products if the product fitness and quality are equal to the non-recycled product and available at the same or lesser total cost than non-recycled items. These products shall include paper products, printing and writing papers, mulch, compost, and compost products, glass products, lubricating oils, plastic products, paint, antifreeze, tires, tire derived products and metal.

h. The City will favorably consider the selection of other recycled and environmentally preferable materials, products, and supplies over their non-recycled or non-environmentally preferable alternatives when the availability, fitness, operational efficiency, quality, safety, and price of the recycled or environmentally preferable product is equal to, or better than, the non-recycled or non-environmentally preferable alternative. The list of materials, products, and supplies shall include, but not be limited to, business office products, alternative fuels, rubberized asphalt, and other items.

i. Departments are encouraged to consider less toxic alternatives when purchasing products or services such as pesticides or pest control services, and to purchase energy and water conserving products whenever possible.

3. Duties Of The Purchasing Agent: The Purchasing Agent shall coordinate implementation of this subsection. Duties of the Purchasing Agent for implementation of this subsection include:

   a. Establishment of a list of recycled products for purchase by all departments when practicable and review of purchase requests to encourage the substitution of recycled products when practicable.

b. Maintenance of a list and standard specifications and, the undertaking of a periodic review of available products. Products may be added as they become available.

c. Giving preference to approving and promoting the purchase of products with the highest postconsumer content, all other considerations being equal.

4. City Departments' Responsibilities: City departments shall be responsible for the following:

a. City staff shall identify the recycled content products available and the vendors from whom such products are available for purchase. This information shall be compiled and provided to the Purchasing Agent and the Sustainability Manager, when practical.

b. Departments shall evaluate the recycled products on the established list and shall make efforts to purchase recycled products when practicable.

Section 2. The City Council hereby determines that the adoption of this ordinance is exempt from review under the California Environmental Quality Act ("CEQA") pursuant to State CEQA Guidelines section 15061 (b)(3) because it can be seen with certainty there is no possibility that the adoption of this ordinance may have a significant effect on the environment.

Section 3. The Mayor shall sign this ordinance and the City Clerk shall certify to the adoption of this ordinance and shall cause it, or a summary of it, to be published once in a newspaper of general circulation within the City, and thereafter, this ordinance shall take effect as provided by law.

_____
Paul T. Barich, Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk, City of Redlands, hereby certify that the foregoing Ordinance was duly adopted by the City Council at the regular meeting thereof, held on the _____ day of _____ 2022, by the following vote:

AYES:

NOES:

ABSENT:

_____
City Clerk

ORDINANCE NO. 2952- LEGISLATIVE

AN ORDINANCE OF THE CITY OF REDLANDS AMENDING CHAPTER 2.16 OF THE REDLANDS MUNICIPAL CODE TO ESTABLISH A LOCAL BUSINESS PREFERENCE PROGRAM FOR THE CITY'S PROCUREMENT OF SUPPLIES, MATERIALS, EQUIPMENT AND SPECIALIZED GOODS

THE CITY COUNCIL OF THE CITY OF REDLANDS DOES ORDAIN AS FOLLOWS:

Section 1. Section 2.16.220 of the Redlands Municipal Code, entitled "Business Preferences," is hereby amended to read as follows:

"2.16.220 Business Preferences:

In administration of competitive procurement pursuant to this chapter, the Purchasing Agent shall be authorized to give such preferences for ~~goods, services or construction~~supplies, materials, equipment, and specialized goods as general law cities are permitted or required to give by applicable State or Federal law, or as provided for in this chapter.

~~A. Local Participation: To promote business retention within the City and the economic health of the City and to encourage local participation in the procurement process, the Purchasing Agent, in determining the lowest responsible bidder for contracts for goods, services or nonpublic project improvement work having a value of less than thirty thousand dollars ($30,000.00), may take into consideration the one percent (1%) Sales Tax which would be returned to the City as a result of the bid award. For procurement where Sales Tax would not be generated as a result of the bid award and where the quality and price are equal to another bidder or bidders, the local vendor may be given the bid award.~~

A. Local Business Preference: To promote business retention within the city and the economic health of the city and to encourage local business participation in the procurement process, the purchasing agent, in determining the lowest responsible bidder for contracts for supplies, materials, equipment and specialized goods shall grant an eight percent (8%) Local Business Preference to Local Businesses. For purposes of this chapter, a Local Business is defined as a business possessing a valid Redlands Business License and having its principal business operation located in the City of Redlands.

B. Business Preferences: To promote the economic health of the County of San Bernardino and to encourage County business participation in the procurement process, the purchasing agent, in determining the lowest responsible bidder for contracts for supplies, materials, equipment and specialized goods shall grant a two percent (2%) County Business Preference to County Businesses. For the purposes of this chapter, a County Business is defined as a business possessing a valid Redlands

Business License and having its principal business operation located within the County of San Bernardino and outside of the City of Redlands.

C. Application to Bids: When applying the Local Business Preference or County Business Preference to a bid, the purchasing agent shall apply the preference to the bid price solely for bid evaluation purposes such that the total price bid by a Local Business shall be reduced by eight percent (8%) of the amount bid by the Local Business, and by two percent (2%) to the County of San Bernardino Business and the reduced bid shall be deemed the amount bid by that bidder. The contract price shall in all events be the amount bid by the successful bidder awarded the contract.

D. Change in Preferences: The Local Business and County Business preferences established by this Chapter shall terminate on December 31, 2026. Commencing on January 1, 2027, to further promote business retention within the city and the economic health of the city and to encourage local participation in the procurement process, the purchasing agent, in determining the lowest responsible bidder for contracts for supplies, materials, equipment and specialized goods having a value of $30,000 or less, may take into consideration the one percent (1%) sales tax which would be returned to the city as a result of the bid award. For procurement where sales tax would not be generated as a result of the bid award and where the quality and price are equal to another bidder or bidders, the local vendor may be given the bid award.

~~B~~E. Recycled Goods: Whenever practicable, all City departments shall use recycled content products and recycled materials to meet their needs. This subsection is enacted to facilitate compliance with State requirements and to foster the development of new, improved markets for recycled products.

1. Definitions: For purposes of this subsection B, the following words shall have the meanings ascribed to them:

   POSTCONSUMER RECYCLED MATERIALS: A finished material or product that has served its intended use and would normally be disposed of as solid waste. Examples of postconsumer recovered materials include, but are not limited to, old newspaper, office paper, green waste (yard waste), steel, glass, aluminum cans, plastic bottles, oil, asphalt, concrete and tires.

   PRACTICABLE: Available within a reasonable time period; the recycled product shall be of equal or better quality or value at either no or minimal additional cost and subject to consideration of product durability as a criterion of the cost or value of the product.

   PRECONSUMER: Materials or byproducts generated after manufacturing of a product is completed, but before the product reaches the consumer. Examples of pre-consumer recovered materials include, but are not limited to, obsolete inventories of finished goods, rejected unused stock and paper wastes generated during printing, cutting and other conversion operations.

RECYCLED MATERIAL: Waste material and byproducts that have been recovered or diverted from the solid waste stream and can be utilized in place of raw or virgin material in a product. Recycled content materials may consist of material derived from postconsumer waste, manufacturing waste, industrial scrap, agricultural waste and other items, all of which can be used in the manufacture of new products.

2. City Departments' Procurement Of Recycled Content Products:

   a. All departments shall use recycled content products whenever practicable. Special emphasis shall be placed on the purchase of products manufactured with postconsumer recycled materials.

   b. Whenever practicable, recycled materials shall be procured and used in City operations (e.g., recycled paper shall be used in copy machines and for printing purposes by departments).

   c. All departments may require procurement of designated recycled content products above levels required by this subsection.

   d. The City shall require its contractors and consultants to use recycled content products in fulfilling contractual obligations whenever practical.

   e. The City shall promote the use of recycled content products publicizing its procurement policy whenever practicable (e.g., use of recycling symbol and statement on recycled content products).

   f. A life cycle cost analysis may be an appropriate tool for departments to use when evaluating purchasing alternatives. Life cycle cost should reflect the annual cost of the product calculated over the life of the product and should consider final costs, not just initial up-front costs. A life cycle cost analysis may include factors such as capital costs, installation costs, maintenance costs, energy and other operating costs, and disposal costs which may utilize the "best value" procurement method.

   g. The City shall procure recycled ~~products, if~~products if the product fitness and quality are equal to the non-recycled product and available at the same or lesser total cost than non-recycled items. These products shall include paper products, printing and writing papers, mulch, compost, and compost products, glass products, lubricating oils, plastic products, paint, antifreeze, tires, tire derived products and metal.

   h. The City will favorably consider the selection of other recycled and environmentally preferable materials, ~~products~~products, and supplies over their non-recycled or non-environmentally preferable alternatives when the availability, fitness, operational efficiency, quality, safety, and price of the recycled or environmentally preferable product is equal to, or better than, the non-recycled or non-environmentally preferable alternative. The list of materials, products, and supplies shall include, but not be limited to, business office products, alternative fuels, rubberized asphalt, and other items.

i. Departments are encouraged to consider less toxic alternatives when purchasing products or services such as pesticides or pest control services, and to purchase energy and water conserving products whenever possible.

3. Duties Of The ~~Finance Director:~~Purchasing Agent: The Purchasing Agent~~Finance Director, or the Director's designee,~~ shall coordinate implementation of this subsection. Duties of the ~~Finance Director~~Purchasing Agent ~~, or the Director's designee,~~ for implementation of this subsection include:

   a. Establishment of a list of recycled products for purchase by all departments when practicable and review of purchase requests to encourage the substitution of recycled products when practicable.

   b. Maintenance of a list and standard specifications and, the undertaking of a periodic review of available products. Products may be added as they become available.

   c. Giving preference to approving and promoting the purchase of products with the highest postconsumer content, all other considerations being equal.

4. City Departments' Responsibilities: City departments shall be responsible for the following:

   a. City staff shall identify the recycled content products available and the vendors from whom such products are available for purchase. This information shall be compiled and provided to the ~~Finance Director, or the Director's designee,~~Purchasing Agent and the Sustainability Manager, when practical.

   b. Departments shall evaluate the recycled products on the established list and shall make efforts to purchase recycled products when practicable.

Section 2. The City Council hereby determines that the adoption of this ordinance is exempt from review under the California Environmental Quality Act~~-~~ ("CEQA") pursuant to State CEQA Guidelines section 15061 (b)(3) because it can be seen with certainty there is no possibility that the adoption of this ordinance may have a significant effect on the environment.

Section 3. The Mayor shall sign this ordinance and the City Clerk shall certify to the adoption of this ordinance and shall cause it, or a summary of it, to be published once in a newspaper of general circulation within the City, and thereafter, this ordinance shall take effect as provided by law.

_____

Paul T. Barich, Mayor

ATTEST:

_____

Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk, City of Redlands, hereby certify that the foregoing Ordinance was duly adopted by the City Council at the regular meeting thereof, held on the _____ day of _____ 2022, by the following vote:

AYES:

NOES:

ABSENT:

_____
City Clerk

City Council Meeting **L. 3.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Consideration of a Side Letter Agreement between the City of Redlands and the Redlands Association of Management Employees (Assistant City Manager McConnell)

MOTION(S):

If the City Council determines that staff's recommendation is appropriate, the following motion is provided:

I move to approve the side letter agreement between the City of Redlands and the Redlands Association of Management Employees.

RECOMMENDATION:

Staff recommends City Council approve the side letter of agreement between the City of Redlands and the Redlands Association of Management Employees.

DISCUSSION:

The City recognizes that it is becoming increasingly difficult to hire and retain qualified employees across the organization. The City currently has 95 vacancies. In addition, the employee turnover rate is 15.8% which is a 6.3% increase over the same period last year. In an effort to retain staff, the City is offering a $3,500 retention bonus to its employees.

The City met and conferred with the Redlands Association of Management Employees and agreed to the terms as set forth in the attached side letter. Eligible employees will receive the retention bonus within 60 days of approval. All other provisions of the Memorandum of Understanding between the City and the Redlands Association of Management employees are unaffected by this agreement.

ALTERNATIVES:

N/A

STRATEGIC PLAN:

N/A

SUBMITTED BY:
Assistant City Manager McConnell

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager
Danielle Garcia, Management Services/Finance Director

PREPARED BY:
Tommi Ng, Assistant Director, HR/Risk Management

Fiscal Impact

Discussion:

The cost of the retention bonus for the Redlands Association of Management Employees is $56,000. Salary savings will be used to cover this cost.

Attachments

RAME Side Letter

CITY OF REDLANDS AND THE REDLANDS ASSOCIATION OF MANAGEMENT EMPLOYEES

SIDE LETTER OF AGREEMENT (2022)

This Side Letter of Agreement amending the July 1, 2018 — June 30, 2023 Memorandum of Understanding between the Redlands Association of Management Employees (RAME) and the City of Redlands ("City") is made and entered into this 15th day of November, 2022. RAME and the City are sometimes individually referred to herein as a "Party" and, together, as the "Parties."

RECITALS

WHEREAS, RAME and the City agreed to a Memorandum of Understanding ("RAME MOU") for the period of July 1, 2018 to June 30, 2023; and

WHEREAS, the Parties now wish to agree to a one-time, $3,500 Retention Bonus; and

WHEREAS, representatives of the City and RAME have met and conferred in good faith, and now wish to effect this change with respect to the RAME MOU;

NOW, THEREFORE, in consideration of the mutual promises contained herein, RAME and the City agree as follows:

AGREEMENT

Effective within 60 days following approval and adoption of this Side Letter Agreement, the City will provide a one-time $3,500 Retention Bonus for all active employees on payroll at the time of the payout, excluding any employees who received a hiring incentive after October 1, 2022.

CITY OF REDLANDS

_____

Paul T. Barich, Mayor

REDLANDS ASSOCIATION OF MANAGEMENT EMPLOYEES

_____

Brian Foote, President

Attest:

_____

Jeanne Donaldson, City Clerk

City Council Meeting **L. 4.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Consideration of Ordinance No. 2948 amending Chapter 15.20 of the Redlands Municipal Code and adopting the 2022 Edition of the California Fire Code which incorporates by reference the 2021 International Fire Code, with necessary California and City of Redlands amendments. This Ordinance will nullify and replace the current Ordinance No. 2900, that was enacted in 2019 as part of the previous fire code adoption process (Fire Chief Sessler)

MOTION(S):

Mayor requests the City Clerk to read the title of proposed Ordinance No. 2948.

I move to waive further reading of, and to introduce, Ordinance No. 2948 and schedule the public hearing for December 6, 2022.

RECOMMENDATION:

Staff recommends that the City Council introduce Ordinance No. 2948 and that the public hearing be set for December 6, 2022.

DISCUSSION:

On January 1, 2023, the State of California Building Standards Commission (CBSC) will adopt the 2021 Edition of the International Fire Code whereby creating the 2022 Edition of the California Code.

Adoption of the 2022 California Fire Code and the 2021 International Fire Code will continue to provide regulations and requirements that pertain specifically to the climatic, topographical and geological conditions for the City of Redlands. These requirements are needed in order to continue to provide and maintain fire and life safety requirements consistent with ordinances previously in place within the City.

The most considerable change from previous fire code adoptions is the proposed identification of defensible space zones. While the model code does not identify individual zones for defensible space, the state of California passed AB 3074 in 2020, requiring the Board of Forestry and Fire Protection to further develop existing defensible space regulations by January 1, 2023.

In accordance with Government Code section 50022.3, a public hearing will be held on December 6, 2022, to consider adoption of the ordinance. The format for holding a public hearing at the second reading rather than the first reading is specifically set out in the Government Code. Public notice will be duly published as required, and a copy of the proposed code and amendments will be made available for public review at the City Clerk's office prior to the hearing.

ALTERNATIVES:

Not approve the introduction of Ordinance No. 2948.

STRATEGIC PLAN:

Priority B - Public Health & Safety

SUBMITTED BY:
Rich Sessler, Fire Chief

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager

PREPARED BY:
Bruni Reyes, Management Analyst

Fiscal Impact

Fiscal Year:	2022-2023
Revenue Generating:	N
Appropriation Required Y/N:	N

Discussion:

There is no fiscal impact with the introduction of the proposed ordinance.

Attachments

Public Notice
Ordinance 2948-Legislative
Ordinance 2948-Clean

CITY OF REDLANDS, CALIFORNIA

NOTICE OF A PUBLIC HEARING TO CONSIDER ORDINANCE NO. 2948 (ORDINANCE TEXT AMENDMENT NO. 2900)

NOTICE is hereby given that the City Council of the City of Redlands, County of San Bernardino, State of California, will hold a public hearing to consider the following:

PUBLIC HEARING to consider **Ordinance No. 2948 (Ordinance Text Amendment No. 2900)** To amend various sections of the Redlands Municipal Code as follows:

- Amending Chapter 15.20 of the Redlands Municipal Code relating to the adoption of the 2021 International Fire Code Section 503, 2022 California Fire Code with local amendments, including chapters 1, 3, 5, 9, 11, 49, 80, as amended, and appendices B, BB, C, CC , D, and O are adopted as the fire code of the city and all of the regulations, provisions, conditions and terms of such fire code and amendments are referred to and made a part of this Chapter as currently adopted.

City of Redlands, Applicant

The 2021 California Building Standard Codes, including the California Fire Code (Primary Code), and the full text of the proposed local ammendments (Secondary Code), are available in the office of the City Clerk's, 35 Cajon St., Suite 4, Redlands, California, 92373 (909)798-7531.

Said public hearing will be held on December 6, 2022, at 6:00 P.M. or as soon thereafter as may be heard, in the City Council Chambers, Civic Center, 35 Cajon Street, Suite 2, Redlands, California, 92373.

Due to time constraints and the number of persons wishing to give oral testimony, time restrictions may be placed on oral testimony at the hearing regarding this project. You may wish to make your comments in writing to the following address to assure that you are able to express yourself adequately: City Council, P. O. Box 3005, Redlands, California 92373 or by e-mail to jdonaldson@cityofredlands.org.

If you challenge the proposal described in this notice in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City Council at or prior to the public hearing.

Dated this 15th day of November, 2022.

_____

Jeanne Donaldson, City Clerk
City of Redlands, California

To be published no later than November 15, 2022 and November 21, 2022.

ORDINANCE NO. 2948

AN ORDINANCE OF THE CITY OF REDLANDS AMENDING CHAPTER 15.20 OF THE REDLANDS MUNICIPAL CODE AND ADOPTING BY REFERENCE THE 2022 EDITION OF THE CALIFORNIA FIRE CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 9) WITH NECESSARY LOCAL AMENDMENTS

WHEREAS, Health and Safety Code Section 17958 and Government Code Section 50022 empower the City to adopt by reference the California Building Standards Code, including the California Fire Code; and

WHEREAS, Health and Safety Code Section 17958.5 authorizes the City to make amendments to the California Fire Code on the basis of local climatic, geological or topographical conditions; and

WHEREAS, Health and Safety Code Section 17958.7 requires that before making any modifications or changes pursuant to Health and Safety Code Section 17958.5, the City Council of the City shall make an express finding of local necessity that such modifications or changes are needed; and

WHEREAS, the City Council of the City of Redlands ("City Council") is informed and finds that these climatic, geological and topographical conditions include, but are not limited to, the following conditions;

1. The City receives relatively low amounts of precipitation, and experiences very low relative humidity levels and extremely high temperatures. These climatic conditions are conductive to the spread of fire. For example, the following data was taken from the recorded temperatures and measured rainfall at the San Bernardino County Flood Control District Office, located at 825 East 3rd Street, San Bernardino:

   2019: Maximum temperature greater than 100F recorded during the months of July, August, and September. Total recorded annual rainfall of ~~7.20~~18.00 inches, with no rain measured in the months of June, July, August, and ~~September~~October. ~~Number of inches to be determined at a later date by San Bernardino County Flood Control District Office.~~

   2020: Maximum temperature greater than 100F recorded during the months of July, August, and September. Total recorded annual rainfall of ~~7.20~~2.72 inches, with no rain measured in the months of April, May, June, August, ~~and~~ September, and October. ~~Number of inches to be determined at a later date by San Bernardino County Flood Control District Office.~~

   2021: Maximum temperature greater than 100F recorded during the months of July, August, and September. Total recorded annual rainfall of ~~7.20~~9.81 inches, with no rain measured in the months of May and November. ~~June, August, and~~

~~September. Number of inches to be determined at a later date by San Bernardino County Flood Control District Office.~~

2. The City is subject to extremely strong winds, commonly referred to as "Santa Ana Winds," which can reach speeds of more than 40 miles per hour. Extensive damage often occurs during such winds including downed trees, power lines, utility poles and utility service lines. These adverse conditions cause:

    A. Fires.
    B. Impairment of emergency apparatus access.
    C. Delays in response times of emergency apparatus; and
    D. The depletion of apparatus readily available for fire suppression activities.

~~Specific amendments to the California Fire Code contained in this Ordinance pursuant to this express finding of local necessity are made to Sections: 903.2.1.1, 903.2.1.2, 903.2.1.3, 903.2.1.4, 903.2.1.5, 903.2.1.6, 903.2.3, 903.2.4, 903.2.7, 903.2.8, 903.2.9, 903.2.9.1, 903.2.9.2, 903.2.11.1, 903.2.18, 903.3.1.3, 903.6.1, 903.6.2, 903.6.3, Fire Sprinklers; 903.5.3 Water Supply; 905.4 Location of Class I standpipe hose connections;910.2, Smoke and Heat Vents, Mechanical Smoke Exhaust Systems and Draft Curtains;910.3.4, Sprinklered Buildings; 914.12 Special Requirements for Group F, M, S-1, or S-2 Distribution Warehouses Greater than 50,000 Square Feet in Floor Area.; 5608 Fireworks; 4902, Wildland-Urban Interface Fire Area; 4908, Vegetation Management; 4907.4 Defensible Space; 4903, Fire Protection Plan; B105.2 Reduction in Required Fire Flow, Appendix B; and BB105.1 Reduction in Required Fire Flow, Appendix BB.~~Specific amendments to the California Fire Code contained in this Ordinance pursuant to this express finding of local necessity are made to sections: 505.1.1 Rooftop Addresses; 903.2.8, 903.2.18 fire sprinklers; 4906.1.1 Vegetation Management; 4907.4, 4907.4.1, 4907.4.1.1, 4907.4.1.2, 4907.4.1.3, 4907.4.1.4, 4907.4.1.5, 4907.4.1.6, 4907.4.1.7, 4907.4.1.8, 4907.4.1.9, 4907.4.2, 4907.4.2.1, 4907.4.2.2, 4907.4.2.3, 4907.4.2.4, 4907.4.2.5, 4907.4.3, 4907.4.3.1, 4907.4.3.2, 4907.4.3.3, 4907.4.3.4, 4907.4.3.5 Defensible Space; Appendix O Temporary Haunted Houses, Ghost Walks, and Similar Amusement Uses.

3. Within the City there are four earthquake faults:

    A. Redlands Heights
    B. Banning
    C. Crafton
    D. The Redlands Fault

    Numerous other faults lie in close proximity, including the San Andreas Fault. In the event of a severe earthquake, these faults present the potential for catastrophic damage, including extensive damage to buildings, fire damage to major infrastructure including water and sewer distribution lines, roadways, bridges across a major storm drain and railroad right-of-way, and other impairments to the movement of emergency apparatus.

~~Specific amendments to the California Fire Code contained in this Ordinance pursuant to this express finding of local necessity are made to Sections: 903.2.1.1, 903.2.1.2, 903.2.1.3, 903.2.1.4, 903.2.1.5, 903.2.1.6, 903.2.3, 903.2.4, 903.2.7, 903.2.8, 903.2.9, 903.2.9.1, 903.2.9.2, 903.2.11.1, 903.2.18, 903.3.1.3, 903.6.1, 903.6.2, 903.6.3, Fire Sprinklers; 903.5.3 Water Supply; 905.4 Location of Class I standpipe hose connections;910.2, Smoke and Heat Vents, Mechanical Smoke Exhaust Systems and Draft Curtains;910.3.4, Sprinklered Buildings; 914.12 Special Requirements for Group F, M, S-1, or S-2 Distribution Warehouses Greater than 50,000 Square Feet in Floor Area.; 5608 Fireworks; 4902, Wildland-Urban Interface Fire Area; 4908, Vegetation Management; 4907.4 Defensible Space; 4903, Fire Protection Plan; B105.2 Reduction in Required Fire Flow, Appendix B; and BB105.1 Reduction in Required Fire Flow, Appendix BB.~~ Specific amendments to the California Fire Code contained in this Ordinance pursuant to this express finding of local necessity are made to sections: 505.1.1 Rooftop Addresses; 903.2.8, 903.2.18 fire sprinklers; 4906.1.1 Vegetation Management; 4907.4, 4907.4.1, 4907.4.1.1, 4907.4.1.2, 4907.4.1.3, 4907.4.1.4, 4907.4.1.5, 4907.4.1.6, 4907.4.1.7, 4907.4.1.8, 4907.4.1.9, 4907.4.2, 4907.4.2.1, 4907.4.2.2, 4907.4.2.3, 4907.4.2.4, 4907.4.2.5, 4907.4.3, 4907.4.3.1, 4907.4.3.2, 4907.4.3.3, 4907.4.3.4, 4907.4.3.5 Defensible Space; Appendix O Temporary Haunted Houses, Ghost Walks, and Similar Amusement Uses.

4. Within the City development has occurred, and continues to occur, which has resulted in severe traffic congestion during peak hours, weekends and holidays, particularly on the following streets and highways: Citrus Avenue, Cajon Street, Orange Street, Lugonia Avenue, Colton Avenue, Tennessee Street, San Timoteo Canyon, Interstate 10 Freeway, and Alabama Street; thus decreasing response time. This development includes high-rise structures, institutional, commercial, industrial and residential structures. Development has occurred within the portion of the City known as Sunset Hills, where roadways have been built in areas of severe topographical conditions including street and driveway grades in excess of 12%. Such traffic congestion and severe roadway conditions extend the time for emergency vehicles to reach the scene of fires and other emergencies.

~~Specific amendments to the California Fire Code contained in this Ordinance pursuant to this express finding of local necessity are mode to Sections: 903.2.1.1, 903.2.1.2, 903.2.1.3, 903.2.1.4, 903.2.1.5, 903.2.1.6, 903.2.3, 903.2.4, 903.2.7, 903.2.8, 903.2.9, 903.2.9.1, 903.2.9.2, 903.2.11.1, 903.2.18, 903.3.1.3, 903.6.1, 903.6.2, 903.6.3, Fire Sprinklers; 903.5.3 Water Supply; 905.4 Location of Class I standpipe hose connections;910.2, Smoke and Heat Vents, Mechanical Smoke Exhaust Systems and Draft Curtains;910.3.4, Sprinklered Buildings; 914.12 Special Requirements for Group F, M, S-1, or S-2 Distribution Warehouses Greater than 50,000 Square Feet in Floor Area.; 5608 Fireworks; 4902, Wildland-Urban Interface Fire Area; 4908, Vegetation Management; 4907.1 Defensible Space; 4909, Fire Protection Plan; B105.2 Reduction in Required Fire Flow, Appendix B; and BB105.1 Reduction in Required Fire Flow, Appendix BB~~ Specific amendments to the California Fire Code contained in this Ordinance pursuant to this express finding of local necessity are made to sections: 505.1.1 Rooftop Addresses; 903.2.8, 903.2.18 fire sprinklers; 4906.1.1 Vegetation Management; 4907.4,

4907.4.1, 4907.4.1.1, 4907.4.1.2, 4907.4.1.3, 4907.4.1.4, 4907.4.1.5, 4907.4.1.6, 4907.4.1.7, 4907.4.1.8, 4907.4.1.9, 4907.4.2, 4907.4.2.1, 4907.4.2.2, 4907.4.2.3, 4907.4.2.4, 4907.4.2.5, 4907.4.3, 4907.4.3.1, 4907.4.3.2, 4907.4.3.3, 4907.4.3.4, 4907.4.3.5 Defensible Space; Appendix O Temporary Haunted Houses, Ghost Walks, and Similar Amusement Uses.

WHEREAS, this City Council is informed and finds that because the City is subject to the above referenced climatic, geological and topographical conditions, that amendments to the California Fire Code, 2022 Edition, are necessary to protect life and property, and that such amendments address the following issues: (1) high fire hazard areas; (2) water supplies; (3) fire extinguishing systems and sprinkler systems, and (4) the storage, handling and use of flammable and combustible liquids and hazardous materials; and

WHEREAS, this City Council does hereby determine that the modifications to the 2022 California Fire Code, as outlined in this Ordinance, are necessary due to local climatic, geographical and topographical conditions;

THE CITY COUNCIL OF THE CITY OF REDLANDS DOES ORDAIN AS FOLLOWS:

Section 1. Chapter 15.20 of the Redlands Municipal Code, titled, "Fire Code," is hereby deleted in its entirety and rewritten to read as follows:

"Chapter 15.20
FIRE CODE

15.20.010: FINDINGS AND ADOPTION OF THE CALIFORNIA FIRE CODE:
15.20.020: DEFINITIONS:
15.20.030: ESTABLISHMENT OF LIMITS REQUIRED BY THE CALIFORNIA FIRE CODE:
15.20.040: TITLE:
15.20.050: DEPARTMENT OF FIRE PREVENTION:
15.20.060: LIABILITY:
15.20.070: FIRE INVESTIGATIONS:
15.20.080: ~~PERMIT FEES:~~ ANNUAL PERMIT:
15.20.090: ~~FEES NONREFUNDABLE~~ PERMIT FEES:
15.20.~~091~~ 100: ~~REQUIRED OPERATIONAL PERMITS:~~ FEES NOT REFUNDABLE:
15.20.~~095~~ 110: ~~INSPECTION FEES:~~ REQUIRED OPERATIONAL PERMITS:
15.20.~~100~~ 120: ~~BOARD OF APPEALS:~~ INSPECTION FEES:
15.20.~~110~~ 130~~:~~: ~~VIOLATION PENALTIES:~~ ELECTRONIC RECORD KEEPING
15.20.140: BOARD OF APPEALS
15.20.150: VIOLATION PENALTIES
15.20.~~120~~ ~~140~~160: ABATEMENT OF VIOLATION:
15.20.~~130~~170: FAILURE TO COMPLY:
15.20.~~150~~180: RELIGIOUS CEREMONIES:
15.20.~~180~~190: SURFACE AND TURNING RADIUS:
15.20.~~190~~200: GRADE:
15.20.~~200~~210: OBSTRUCTION OF FIRE APPARATUS ACCESS ROADS:

15.20.~~210~~220: PREMISES IDENTIFICATION:
15.20.~~220~~230: ROOFTOP ADDRESSES
~~SMOKE OR FOG EMITTING SYSTEMS~~:
15.20.~~230~~240: FIRE HYDRANTS AND MAINS:
15.20.~~240~~250: PRIVATE FIRE HYDRANT IDENTIFICATION
15.20.260: PRIVATE FIRE HYDRANT MARKERS
15.20.270: ACCESS TO EQUIPMENT:
~~15.20.250: GROUP A-1:~~
~~15.20.260: GROUP A-2:~~
~~15.20.270: GROUP A-3:~~
15.20.280: SMOKE OR FOG EMITTING SYSTEMS
~~GROUP A-4:~~
15.20.290: GROUP ~~A-5~~A-1:
15.20.300: GROUP ~~B~~A-2:
15.20.310: GROUP ~~E~~A-3:
15.20.320: GROUP ~~F~~A-4:
15.20.330: GROUP ~~M~~A-5:
15.20.340: GROUP ~~R~~B:
15.20.350: GROUP ~~S~~E:
15.20.360: ~~REPAIR GARAGES:~~GROUP F
15.20.370: ~~BULK STORAGE OF TIRES:~~GROUP M
15.20.380: ~~SECTION 903.2.9 AMENDED:~~GROUP R
15.20.390: ~~STORIES WITHOUT OPENINGS:~~GROUP S
15.20.400: ~~SECTION 903.2.11.3 AMENDED:~~REPAIR GARAGES
15.20.410: ~~GROUP U OCCUPANCY:~~BULK STORAGE OF TIRES
15.20.420: ~~NFPA 13D SPRINKLER SYSTEMS:~~ SECTION 903.2.9 AMENDED
15.20.430: ~~WATER SUPPLY FOR AREAS WITHOUT CITY WATER SERVICE:~~STORIES WITHOUT OPENINGS
15.20.440: ~~AREA INCREASE AND RECONSTRUCTION:~~SECTION 903.2.11.3 AMENDED
15.20.450: ~~CHANGE IN USE:~~GROUT U OCCUPANCY
15.20.460: ~~ADAPTIVE REUSE:~~NFPA13D SPRINKLER SYSTEMS
15.20.470: ~~SECTION 905.4 AMENDED:~~WATER SUPPLY FOR AREAS WITHOUT CITY WATER SERVICE
~~1~~5.20.480: ~~SMOKE AND HEAT VENTS, MECHANICAL SMOKE EXHAUST SYSTEMS AND~~
~~DRAFT CURTAINS:~~AREA INCREASE AND RECONSTRUCTION
15.20.490: ~~SPRINKLERED BUILDINGS:~~ CHANGE IN USE
15.20.500: ~~SECTION 914.12 ADDED:~~ ADAPTIVE REUSE
15.20.510: SECTION 905.4 AMENDED
15.20.520: ~~FIREWORKS~~: SMOKE AND HEAT VENTS, MECHANICAL SMOKE EXHAUST SYSTEMS AND DRAFT CURTAINS
~~15.20.520.1: MINOR CHARGE:~~
~~15.20.520.2: PROPERTY:~~
~~15.20.520.3: RESPONSE COSTS:~~
~~15.20.520.4: RESPONSIBLE GUARDIAN:~~
~~15.20.520.5: PROHIBITION:~~

~~15.20.520.6: APPLICATION OF STATE LAW:~~
~~15.20.520.7: LIABILITY FOR RESPONSE COSTS:~~
15.20.530: ~~WILDLAND-URBAN INTERFACE FIRE AREA:~~SPRINKLER BUILDINGS
15.20.540: ~~VEGETATION MANAGEMENT:~~SECTION 914.12 ADDED
15.20.550: ~~DEFENSIBLE SPACE~~: EMERGENCY RESPONDER RADIO COVERAGE IN EXISTING BUILDINGS
15.20.560: ~~FIRE PROTECTION PLAN~~:FIREWORKS
15.20.570: ~~APPENDIX B:~~MINOR CHARGE
15.20.580: ~~APPENDIX BB:~~PROPERTY
15.20.590: ~~APPENDIX C:~~ RESPONSE COSTS
15.20.600: ~~APPENDIX CC:~~ RESPONSIBLE GUARDIAN
15.20.610: ~~APPENDIX D:~~ PROHIBITION
15.20.620: ~~VIOLATION; PENALTY:~~APPLICATION OF STATE LAW
15.20.630: LIABILITY FOR RESPONSE COSTS
15.20.640: WILDLANDS-URBAN INTERFACE FIRE AREA
15.20.650: VEGETATION MANAGEMENT
15.20.660: DEFENSIBLE SPACE
15.20.670: FIRE PROTECTION PLAN
15.20.680: APPENDIX B
15.20.690: APPENDIX BB
15.20.700: APPENDIX C
15.20.710: APPENDIX CC
15.20.720: APPENDIX D
15.20.730: APPENDIX O
15.20.740: VIOLATION PENALTY

15.20.010: FINDINGS AND ADOPTION OF THE CALIFORNIA FIRE CODE:

A. Findings: The City Council of the City of Redlands hereby finds and determines:

1. That the International Code Council is a private organization which has been in existence for a period of at least three (3) years.

2. That the International Fire Code, ~~2018~~2021 edition, published by said organization, is a nationally recognized compilation of proposed rules, regulations, and standards of said organization.

3. That the international fire code has been printed and published as a code in book form within the meaning of section 50022.2 et seq., of the California Government Code.

4. That the California fire code, also known as the California code of regulations, title 24, part 9, a portion of the "California building standards code" as defined in the "California building standards law" commencing with section 18901 of the Health And Safety Code, is assigned to the California building standards commission, which by law is responsible for approving all building standards within the state of California. The ~~2019~~2022 edition of the California

fire code incorporates by reference the ~~2018~~2021 edition of the international fire code, with necessary California amendments.

5. That a copy of the ~~2019~~2022 California fire code, certified by the city clerk of the city of Redlands to be a true copy, has been filed for use and examination by the public in the fire prevention office of the Redlands fire department and the office of the city clerk.

6. The sections of said California fire code may be referred to by the number used in said published compilation, preceded by the words "California fire code section" or "fire code section", and may also be referred to by additional reference to this municipal code and sections therein pertaining to said California fire code.

7. That the additional requirements and standards established herein are needed to properly protect the health, safety, and welfare of the existing and future residents and workers within the city of Redlands. Said requirements and standards are reasonably necessary because of local climatic, geological, and topographical conditions, and comply with existing state laws and regulations.

8. The city council finds and determines that the local variances from the California fire code - building standards, California code of regulations, title 24, part 9, contained in the city fire code, are reasonably necessary because of local climatic, topographic and geographical considerations.

B. Adoption Of The California Fire Code: The city council of the city of Redlands hereby adopts by reference, the ~~2019~~2022 California fire code, and appendices B, BB, C, CC, and D, including fees and penalties, as compiled and adopted by the California building standards commission; along with certain amendments, additions, deletions and exceptions based upon the city council's findings that the same are necessary based upon local climatic, geologic and topographical conditions. The provisions of the California fire code, California fire code appendix chapters, and the California fire code appendices shall be applicable in all areas within the city of Redlands. The city council of the city of Redlands hereby adopts and amends the ~~2019~~2022 edition of the California fire code, as compiled and published by the California building standards commission.

15.20.020: DEFINITIONS:

A. Wherever the word "jurisdiction" is used in the fire code, it shall mean the city of Redlands.

B. Wherever the term "corporation counsel" is used in the fire code, it shall mean the city attorney for the city of Redlands.

C. Wherever the term "fire chief" is used in the fire code, it shall mean the fire chief~~-~~ of the city of Redlands, or his or her authorized representative.

D. Wherever the term "fire department" is used in the fire code, it shall mean the fire department of the city of Redlands.

E. An employee of the city of Redlands fire department, when enforcing the California fire code, this municipal code and other laws, rules and regulations relating to fire and life safety, fire prevention and fire investigation, shall be deemed a "peace officer" as those words are used in section 830.31 of the California Penal Code.

F. Whenever the term "fire marshal" is used in the fire code, it shall mean the supervisor of the fire prevention bureau and shall serve as the fire code official under the direction of the fire chief, or the fire chief's authorized representative. The community risk reduction division of the fire department shall be responsible for fire prevention department duties within the city of Redlands.

15.20.030: ESTABLISHMENT OF LIMITS REQUIRED BY THE CALIFORNIA FIRE CODE:

A. Storage of Flammable Cryogenic Fluids: Pursuant to section 5504.1 of the California fire code, flammable cryogenic fluids shall not be permitted to be stored, dispensed, or used unless, in the opinion of the fire code official, such storage will not create an unacceptable threat to the occupants and property owners.

B. Storage of Explosives and Blasting Agents: Pursuant to section 5601.1 of the California fire code, the storage of explosives and blasting agents is prohibited in all areas unless authorized by the fire code official.

C. Storage Of Class I And II Liquids: Pursuant to sections 5704.1 and 5706.1 of the California fire code, the storage of class I and class II liquids in outside aboveground unprotected tanks is prohibited in all areas of the city unless the fire code official determines, with specific documented findings, that such an installation will not create a hazard to life or property in the area.

D. Storage Of Liquefied Petroleum Gases: Pursuant to section 6101.3 of the California fire code, the aggregate capacity of any one installation for the bulk storage of liquefied petroleum gases shall not exceed two thousand (2,000) water gallons (7571 liters) in commercial, residential and other areas where, in the opinion of the fire code official, the location of bulk storage of liquefied petroleum gases would create a threat to life and property.

15.20.040: TITLE:

Section 101.1 of chapter 1, division II of the California fire code is hereby amended to read as follows:

> 101.1 Title. These regulations shall be known as the fire code of the city of Redlands, hereinafter referred to for purposes of this chapter 15.20 as "this code."

15.20.050: DEPARTMENT OF FIRE PREVENTION:

Section 103.2 of chapter 1, division II of the California fire code is hereby deleted.

15.20.060: LIABILITY:

Section 104.1~~2~~3 of chapter 1, division II of the California fire code is hereby added to read as follows:

104.1~~2~~3.1 Cost Recovery. Fire suppression, investigation and rescue or emergency medical costs are recoverable in accordance with Health and Safety Code sections 13009 and 13009.1. Any person who negligently or intentionally, or in violation of law, causes an emergency response, including but not limited to, a traffic accident or spill of toxic or flammable fluids or chemicals, is liable for the costs of securing such emergency, including those costs set out in Health And Safety Code section 13009 et seq. and Government Code section 53150 et seq. Any expense incurred by the city for securing such an emergency situation shall constitute a debt of such person and shall be collectible by the city in the same manner as in the case of an obligation under contract, expressed or implied.

A false fire alarm response fee may be imposed and paid after two (2) false fire alarms have been received from any one residential or commercial source, or from any one alarm system, within any consecutive three hundred sixty five (365) day period. The false alarm response fee shall be established by resolution of the city council.

104.1~~2~~3.2 Expense for Securing an Emergency. The expense of securing any emergency or hazard which is the result of a violation of this code or any other code, ordinance or state law, or any damages caused by malicious mischief requiring any corrective or preventive actions conducted by the city may be a charge against the persons or entity whose such emergency or action may constitute a debt of such persons or entity as provided below.

1. The fire chief, or duly authorized representative, may impose the reasonable cost of fire prevention, fire suppression, and protection of the public from other safety hazards when a fire or hazardous condition results from any of the following activities or conditions:

A. Manufacture, transportation, storage, handling, or spilling of hazardous chemicals, flammable or combustible liquids, explosives, or blasting agents;

B. Failure to correct a hazardous condition for which a "notice of violation," or equivalent notice, has been previously given by the chief, or duly authorized representative;

C. Use of welding equipment, cutting torch, tar pot, or other open flame device;

D. Permitting or causing the accumulation of hazardous or flammable materials;

E. Setting of a fire or allowing a fire to be set in violation of any code, ordinance, law or regulation;

F. Creating, allowing, or maintaining a fire hazard.

15.20.070: FIRE INVESTIGATIONS:

Section 104.1~~0~~1 of chapter 1, division II of the California fire code is hereby amended to read as follows:

104.1~~0~~1 Fire Investigations. The fire code official and the fire department shall investigate the cause, origin and circumstances of any fire, explosion and other hazardous condition. Information that could be related to trade secrets or processes shall not be made part of the public record except as required by law.

The fire chief or duly authorized representative, is authorized to investigate the cause, origin and circumstances of unauthorized releases of hazardous materials. The Redlands police department and allied law enforcement agencies are authorized to assist the fire department in its investigations when requested to do so.

15.20.080: ANNUAL PERMIT:

Section 105.1.6 of chapter 1, division II of the California fire code is hereby deleted.

15.20.0~~80~~90: PERMIT FEES:

Section 105.2.5 of chapter 1, division II of the California fire code is hereby added to read as follows:

105.2.5 Permit Fees. Permit fees as established by city council resolution shall be collected by the finance department. Proof of receipt shall accompany all applications for permit prior to any inspection and approval by the city.

15.20.~~090~~100: FEES NONREFUNDABLE:

Section 105.2.6 of chapter 1, division II of the California fire code is hereby added to read as follows:

105.2.6 Fees Not Refundable. Permit fees shall not be refundable for any reason after initiation of plan review or inspection procedures.

15.20.~~091~~110: REQUIRED OPERATIONAL PERMITS:

Section 105.~~6~~5.50 of chapter 1, division II of the California fire code is hereby added to read as follows:

105.~~6~~5.~~50~~ 55 Fixed Kitchen Hood and Duct Extinguishing System. An operational permit is required to utilize commercial cooking appliances, as defined in Section 602, with a fixed hood and duct fire extinguishing system

~~105.5.55 – Operation Permits~~
~~105.5.55 – Construction Permits~~

105.5.56 – Temporary Haunted Houses, Ghost Walks, and Similar Amusement uses. An operational permit is required in accordance with Appendix O for temporary haunted houses, ghost walks, and similar amusement uses.

15.20.~~095~~120: INSPECTION FEES:

Section ~~106.2~~107.7 of chapter 1, division II of the California fire code is hereby added to read as follows:

~~106.2~~107.7 Inspection Fees. The fire code official is authorized to impose and collect appropriate fees for inspections established by resolution of the city council.

15.20.130: ~~Electronic Record Keeping~~ELECTRONIC RECORD KEEPING

Section 109.3.1 of chapter 1, division II of California Fire Code is hereby added to read as follows:

109.3.1. Electronic Record Keeping. The Fire Code Official is authorized to require electronic format submittals for fire protection systems maintenance records.

15.20.~~100~~140: BOARD OF APPEALS:

Section ~~109.1~~111 of chapter 1, division II of the California fire code is hereby amended to read as follows:

~~109.1~~111.1 Board of Appeals. The city planning commission shall serve as the board of appeals. The chief building official, director of development services and the fire chief of the city, or their respective designees, shall serve in an advisory capacity when requested to do so. Board members shall disqualify themselves and shall not participate in any decision in which they have a conflict of interest.

15.20.~~110~~150: VIOLATION PENALTIES:

Section ~~110.4~~112.4 of chapter 1, division II of the California fire code is hereby amended to read as follows:

~~110.4~~112.4.1 Administrative Citation Process Violation Penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of one thousand dollars ($1,000.00) a day or by imprisonment not exceeding six months, or both such fine and imprisonment. Each day that a violation continues after due notice has been

served shall be deemed a separate offense. The city may also prosecute or enforce violations of this chapter as a criminal offense in accordance with this section.

~~A. 112.4.2 Criminal Citation Process~~

15.20.~~120~~160: ABATEMENT OF VIOLATION:

Section ~~110.4~~.112.4~~1~~of chapter 1, division II of the California fire code is hereby amended to read as follows:

~~110.4.1~~112.4.1 Abatement of Violation. In addition to the imposition of the penalties herein described, the fire code official is authorized to institute an appropriate action to prevent unlawful construction or to restrain, correct or abate a violation; or to prevent illegal occupancy of a structure or premises; or to stop an illegal act, conduct of business or occupancy of a structure on or about any premises. The expense of such action may be made a lien upon the property upon which such condition exists.

15.20.~~130~~170: FAILURE TO COMPLY:

Section ~~112.4~~113.4 of chapter 1, division II of the California fire code is hereby amended to read as follows:

~~112.4~~113.4 Failure To Comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to violation penalties pursuant to section ~~109.4.1~~112.4.~~.~~

15.20.~~150~~180: RELIGIOUS CEREMONIES:

Section 308.1.7 of the California fire code is hereby amended to read as follows:

308.1.7 Religious or Other Assembly Ceremonies. Candles held in persons' hands (or on a non-stable device) are especially dangerous and shall not be permitted. Battery operated simulated candles are available and may be used. No permit is required for battery-operated candles or other electric candles.

15.20.~~180~~190: SURFACE AND TURNING RADIUS:

Section 503.2.3 of the California fire code is hereby amended to read as follows:

503.2.3 Surface~~. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced with an approved concrete or asphalt covering so as to provide all-weather driving capabilities.~~ §503.2.3 Fire apparatus access roads for purposes of rapid and reliable fire apparatus access shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds. Fire apparatus access roads shall be surfaced with an approved concrete or asphalt covering

so as to provide all-weather driving capabilities. Turf block, Ritter Rings, Turf Paver and other similar products shall not be used for fire department access surfacing. Where rural road grades do not exceed 8%, the fire code official may approve access roads of approved native materials or gravel when compacted to ninety-five percent (95%).

TURNING RADIUS

Section 503.2.4 of the California fire code is hereby amended to read as follows:

503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be an inner radius of ~~nineteen (19)~~twenty (20) feet and outer radius of ~~thirty-one (31)~~forty (40) feet.

15.20.~~190~~200: GRADE:

Section 503.2.7 of the California fire code is hereby amended to read as follows:

503.2.7 Grade. The grade of the fire apparatus access road shall be a maximum of twelve percent (12%), unless otherwise approved by the fire code official for short distances when appropriate mitigation measures are utilized.

15.20.~~200~~210: OBSTRUCTION OF FIRE APPARATUS ACCESS ROADS:

Section 503.4 of the California fire code is hereby amended to read as follows:

503.4 Obstruction of Fire Apparatus Access Roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in section 503.2.1 shall be maintained at all times. Any obstruction or impedance to reasonable access may be removed at the order of the fire code official or the fire department, with the expense of such removal to be borne by the owner of the roadway, or in the case of an obstructing vehicle or object, by the owner of said vehicle or object.

15.20.~~210~~220: PREMISES IDENTIFICATION:

Section 505.1 of the California fire code is hereby amended to read as follows:

505.1 Premises Identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be ~~a~~Arabic numerals or alphabet letters. Numbers shall be affixed on a structure in a location with a clear, unobstructed view from the street. All numbers shall be electrically illuminated during the hours of darkness.

Numbers shall be a minimum of 4 inches high with a minimum stroke width of 0.5 inch for single-family residences.

All multi-family, multi-retail and multi-commercial occupancies shall:

Have a minimum of 6 inch high numbers, with a minimum one inch (1") stroke.

Identify individual units with numbers a minimum of four (4) inches, affixed to the unit's front door entrance or frame. All buildings with a rear door access shall identify that unit with the proper numbers affixed to the door or frame.

All light and heavy industrial occupancies shall have a minimum of ten (10) inch high numbers, with a minimum one-and-one-half inch ($1^1/2$") stroke. All complexes that are three (3) stories or greater in height and/or have two (2) or more building units shall have a minimum of ten (10) inch high numbers, with a one-and-one-half inch ($1^1/2$") stroke.

Buildings with a total floor area of 100,000 square feet (9290 m^2) or greater shall have minimum 12 inch (305 mm) high numbers, with a minimum stroke width of $1^1/2$ inches (38 mm).

All buildings with two (2) or more units shall identify utility meters according to the unit being serviced.

Buildings set-back from the street by 200' or more, shall have additional address number of a minimum of 4" located at the property entrance.

15.20.230: ~~Rooftop Addresses~~ROOFTOP ADDRESSES

Section 505.1.1 of the California fire code is hereby added to read as follows:

~~§~~505.1.1 Rooftop Addressing. Buildings exceeding a total square footage of 50,000 square feet shall have rooftop numbers placed parallel to the addressed street for purposes of being visible from the air. The numbers shall be block lettered and shall be a minimum of four (4) feet in height and eighteen (18) inches in width. When more than one street address is assigned to a building, the beginning and ending address numbers are to be placed at opposite ends of the building, indicating the approximate location of the addressed portion of the building.

~~15.20.220: SMOKE OR FOG EMITTING SYSTEMS:~~

~~Section 511 of the California fire code is hereby added to read as follows:~~

~~511 Smoke Or Fog Emitting Systems. No alarm system shall be installed in a building or portion of a building which as a part of its operation discharges any gas, vapor, liquid, or other product when the primary intent of the system discharge is to obscure the vision of any person, cause disorientation, or incapacitate any person within the building or portion thereof. Nothing in this section is intended to preclude the connection of an alarm system to any fire suppression system.~~

15.20.~~230250~~240: FIRE HYDRANTS AND MAINS:

Section 507.5.1 of the California fire code is hereby amended to read as follows:

507.5.1 Where Required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 300 feet (91 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exceptions:

1. For group R-3 and group U occupancies, the distance requirement shall be 600 feet (183 m). This distance may be further modified by the fire code official for such occupancies when buildings are equipped throughout with an approved fire sprinkler system installed in accordance with section 903.3.1.3.

2. Deleted.

15.20.~~260~~250: ~~Private Fire Hydrant Identification~~PRIVATE FIRE HYDRANT IDENTIFICATION

Section 507.5.7: California fire code is hereby added to read as follows:

~~§~~507.5.7 Private fire hydrants shall be painted OSHA Safety red or equivalent.

15.20.~~270~~260: ~~Private Fire Hydrant Markers~~PRIVATE FIRE HYDRANT MARKERS

Section 507.5.8: of the California Fire Code is hereby added to read as follows:

~~§~~507.5.8 Blue reflective pavement markers shall be placed within six (6) inches of the edge of the center lane line on the side of the nearest hydrant.

15.20.~~240280~~270: ACCESS TO EQUIPMENT:

Section 507.5.7:

Section 509.3 of the California fire code is hereby added to read as follows:

509.3 Access to Equipment in Multi-Unit Buildings. When automatic fire sprinkler systems or fire alarm systems are installed in buildings constructed for multiple tenants and these systems protect multiple tenant spaces, the main controls and control appurtenances, such as risers, fire alarm control panels, and valves for such systems, shall be located in an attached or included room or an approved weather-resistant enclosure with at least one exterior access door of not less than 3'-0" by 6'-8".

15.20.~~240~~280: SMOKE OR FOG EMITTING SYSTEMS:

Section 511 of the California fire code is hereby added to read as follows:

> 511 Smoke Or Fog Emitting Systems. No alarm system shall be installed in a building or portion of a building which as a part of its operation discharges any gas, vapor, liquid, or other product when the primary intent of the system discharge is to obscure the vision of any person, cause disorientation, or incapacitate any person within the building or portion thereof. Nothing in this section is intended to preclude the connection of an alarm system to any fire suppression system.

15.20.~~250~~290: GROUP A-1:

Section 903.2.1.1 of the California fire code is hereby amended to read as follows:

> 903.2.1.1 Group A-1. An automatic sprinkler system shall be provided for group A-1 occupancies.

15.20.~~260~~300: GROUP A-2:

Section 903.2.1.2 of the California fire code is hereby amended to read as follows:

> 903.2.1.2 Group A-2. An automatic sprinkler system shall be provided for group A-2 occupancies.

15.20.~~270~~310: GROUP A-3:

Section 903.2.1.3 of the California fire code is hereby amended to read as follows:

> 903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for group A-3 occupancies.

15.20.~~280~~320: GROUP A-4:

Section 903.2.1.4 of the California fire code is hereby amended to read as follows:

> 903.2.1.4 Group A-4. An automatic sprinkler system shall be provided for group A-4 occupancies.

15.20.~~290~~330: GROUP A-5:

Section 903.2.1.5 of the California fire code is hereby amended to read as follows:

903.2.1.5 Group A-5. An automatic sprinkler system shall be provided for group A-5 occupancies in the following areas: concession stands, retail areas, press boxes, and other accessory use areas in excess of 200 square feet (19 m^2).

15.20.~~300~~340: GROUP B:

Section 903.2.1.8 of the California fire code is hereby added to read as follows:

903.2.1.8 Group B. An automatic sprinkler system shall be provided throughout all buildings containing group B occupancies where the fire area exceeds 200 square feet (19 m^2).

15.20.~~310~~350: GROUP E:

Section 903.2.3 of the California fire code is hereby amended to read as follows:

903.2.3 Group E. Except as provided for in sections 903.2.19 for a new public school campus and 903.2.20 (modernization project), an automatic sprinkler system shall be provided for group E occupancies as follows:

1. Throughout all group E fire areas greater than 200 square feet (19 m^2) in area.

2. Throughout every portion of educational buildings below the level of exit discharge.

3. In rooms or areas with special hazards such as laboratories, vocational shops and other such areas where hazardous materials in exempt amounts are used or stored.

15.20.~~320~~360: GROUP F:

Section 903.2.4 of the California fire code is hereby amended to read as follows:

903.2.4 Group F. An automatic sprinkler system shall be provided throughout all buildings containing group F occupancy where the fire area exceeds 200 square feet (19 m^2).

15.20.~~330~~370: GROUP M:

Section 903.2.7 of the California fire code is hereby amended to read as follows:

903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a group M occupancy where the fire area exceeds 200 square feet (19 m^2).

15.20.~~340~~380: GROUP R:

Section 903.2.8 of the California fire code is hereby amended to read as follows:

903.2.8 Group R. An automatic sprinkler system installed in accordance with section 903.3 shall be provided throughout all buildings with a group R fire area.

Exceptions:

1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing bedridden clients, not housing non-ambulatory clients above the first floor, and not housing clients above the second floor.

2. Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with Section 435.8.3.3 of the California Building Code.

3. Pursuant to Health and Safety Code, Section 13113, occupancies housing ambulatory children only, none of whom are mentally ill children or children with intellectual disabilities, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.

4. Pursuant to Health ~~And~~and Safety Code, Section 13143.6, occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

5. When approved by the fire code official, detached group U private garages or carports accessory to a group R-3 occupancy, -not located in the high or very high fire hazard areas of the jurisdiction as identified by California Department of Forestry and Fire Protection.

~~5.~~6. ~~§903.2.8 Exception 6~~ When approved by the fire code official, detached group U private garages or carports accessory to a group R-3 occupancy not located within fifty (50) feet from an adjacent building, structure, and/or property line.

15.20.~~350~~390: GROUP S:

Section 903.2.9 of the California fire code is hereby amended to read as follows:

903.2.9 Group S. An automatic sprinkler system shall be provided throughout all buildings containing a group S occupancy where the fire area exceeds 200 square feet (19 m^2).

15.20.~~360~~400: REPAIR GARAGES:

Section 903.2.9.1 of the California fire code is hereby amended to read as follows:

903.2.9.1 Repair Garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with the California building code.

15.20.~~370~~410: BULK STORAGE OF TIRES:

Section 903.2.9.2 of the California fire code is hereby amended to read as follows:

903.2.9.2 Bulk Storage of Tires. Buildings and structures where the area for the storage of tires exceeds 200 square feet (19 m^2) shall be equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1.

15.20.~~380~~420: SECTION 903.2.9 ~~AMENDED~~AMENDED:

Section 903.2.9 of the California fire code is hereby amended by the deletion of the exception.

15.20.~~390~~430: STORIES WITHOUT OPENINGS:

Section 903.2.11.1 of the California fire code is hereby amended to read as follows:

903.2.11.1 Stories without Openings. An automatic sprinkler system shall be installed throughout all stories, including basements, of all buildings where the floor area exceeds 200 square feet (19 m^2) and where there is not provided at least one of the following types of exterior wall openings:

1. Openings below grade that lead directly to ground level by an exterior stairway complying with section 1011 or an outside ramp complying with section 1012. Openings shall be located in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on at least one side.

2. Openings entirely above the adjoining ground level totaling at least 20 square feet (1.86 m^2) in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on at least one side.

15.20.~~400~~440: SECTION 903.2.11.3 AMENDED:

Section 903.2.11.3 of the California fire code is hereby amended by the deletion of the exception.

15.20.~~410~~450: GROUP U OCCUPANCY:

Section 903.2.18 of the California fire code is hereby amended to read as follows:

903.2.18 Group U Occupancy. An automatic sprinkler system shall be provided throughout buildings containing a group U occupancy where the fire area exceeds 200 square feet (19 m^2).

Exceptions:

1. When approved by the fire code official, group U occupancies, not located in the high or very high fire hazard areas of the jurisdiction as identified by California Department of Forestry and Fire Protection.

~~1.~~2.~~Exception #2:~~ When a group U occupancy is not located within fifty (50) feet from an adjacent building, structure, and/or property line.

15.20.~~420~~460: NFPA 13D SPRINKLER SYSTEMS:

Section 903.3.1.3 of the California fire code is hereby amended to read as follows:

> 903.3.1.3 NFPA 13D Sprinkler Systems. Automatic sprinkler systems installed in one- and two-family dwellings shall be installed throughout in accordance with NFPA 13D, including attached garages.

15.20.~~430~~470: WATER SUPPLY FOR AREAS WITHOUT CITY WATER SERVICE:

Section 903.3.5.3 of the California fire code is hereby added to read as follows:

> 903.3.5.3 Water Supply For Areas Without City Water Service. In areas without city water service, buildings where the fire area exceeds 200 square feet (19 m^2) shall be provided with an approved automatic sprinkler system. Group R-3 occupancies shall be provided with on-site water storage for a minimum 10-~~-~~minute sprinkler demand. When approved by the fire code official, on-site water storage for other than group R occupancies may be reduced to that required for an approved 30-~~-~~minute sprinkler demand. These flows and duration do not consider the needs required to provide domestic service. All sprinkler systems shall be suitably freeze-protected for climatic conditions when necessary.
>
> Exception: When approved by the fire code official, group U occupancy, not located in the high or very high fire hazard areas of the jurisdiction as identified by California Department of Forestry and Fire Protection.

15.20.~~440~~480: AREA INCREASE AND RECONSTRUCTION:

Section 903.6.1 of the California fire code is hereby amended by adding the following:

> 903.6.1 Area Increase and Reconstruction. Every existing building or structure relocated or moved onto a property, every building or structure which as a result of fire, earthquake, or other disaster requires demolition and reconstruction, or every existing building or structure that is receiving or has received an addition(s) in which fifty percent (50%) of the original area is exceeded, shall have an approved automatic sprinkler system installed throughout therein.

15.20.~~450~~490: CHANGE IN USE:

Section 903.6.2 of the California fire code is hereby amended by adding the following:

> 903.6.2 Change in Use. Changes made in the character or use of an occupancy shall be approved by the building official and the chief. When there is a change of use or occupancy of a building which exceeds 5,000 square feet in floor area which would place the building in a different division of the same group of occupancy or in a different group of occupancies, the occupancy shall be provided with an approved automatic sprinkler system throughout, unless the proposed use is less hazardous based on fire or life safety risk, than the existing use.

15.20.~~460~~500: ADAPTIVE REUSE:

Section 903.6.3 of the California fire code is hereby amended by adding the following:

903.6.3 Adaptive Reuse. Every existing group R occupancy that is changed to a commercial use shall have an approved automatic sprinkler system installed throughout.

15.20.~~470~~510: SECTION 905.4 AMENDED:

Section 905.4 of the California fire code is hereby amended by adding location number 7 to read as follows:

7. When required by other provisions of this code, $2^1/2$ inch hose connections, meeting the requirements of this section and fire department standards, shall be located at every other exterior fire department access door as defined by section 2306.6.1, and arranged so that every portion of the building and its contents can be reached with 150 feet of hose and stream.

15.20.~~480~~520: SMOKE AND HEAT VENTS, MECHANICAL SMOKE EXHAUST SYSTEMS AND DRAFT CURTAINS:

Section 910.2 of the California fire code is hereby amended to read as follows:

910.2 Where Required. Where required by this code or otherwise installed, smoke and heat vents or mechanical smoke exhaust systems and draft curtains shall conform to the requirements of this section.

Exceptions:

1. Frozen food warehouses used solely for storage of class I and II commodities where protected by an approved automatic sprinkler system.

2. Deleted.

3. Deleted.

15.20.~~490~~530: SPRINKLERED BUILDINGS:

Section 910.3.~~4~~5 of the California fire code is hereby ~~added~~amended ~~-~~to read as follows:

910.3.~~4~~5 Sprinklered Buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by the actuation of a heat responsive device rated at least 100 degrees F above the operating temperature of the sprinkler heads, or manually with independent controls for the fire department pursuant to section 914.12.

15.20.~~500~~540: SECTION 914.12 ADDED:

Section 914.12 of the California fire code is hereby added to read as follows:

914.12 Special Requirements For Group F, M, S-1 Or S-2 Distribution Warehouses Greater Than 50,000 Square Feet in Floor Area. Buildings classified primarily as group M, group S-1 or S-2, with no more than 10% of the building square footage occupied with accessory uses, in which the primary use is wholesale or retail sales of bulk products or packaged materials, or for the storage of commodities for distribution, shall be in accordance with this section.

914.12.1 Fire Command Center. A fire command center for fire department operations shall be provided. The location and accessibility of the fire control room shall be approved by the fire code official. The fire control room shall be separated from the remainder of the building by walls and ceilings not less than one-hour fire partitions. The room shall be a minimum of 200 square feet (19 m^2) in area, with a minimum dimension of 10 feet (3048 mm). The room shall contain the following as a minimum:

1. The fire alarm control unit and associated equipment.

2. Annunciator panel displaying status of sprinkler control valves and waterflow detectors.

3. Main controls and indicators for mechanical smoke exhaust systems.

4. Graphic with schematic indicating building floor plans, means of egress, fire protection systems, firefighting equipment and access.

5. Other firefighting equipment and system controls as required by the fire code official.

6. Emergency lighting powered by the standby electrical system.

914.12.2 Mechanical Smoke Exhaust. A mechanical smoke exhaust system conforming to the requirements of section 910.4 shall be provided. The system may be combined with environmental or other ventilation air systems when approved by the fire code official.

914.12.3 Standpipe Systems. A class I standpipe system shall be provided, with hose connections located at fire department access doors as required by section 905.4. The system may be interconnected with the building automatic sprinkler systems, and may be supplied by adjacent systems or by a separate riser. Standpipe systems shall conform to the requirements of NFPA 14.

914.12.4 Fire Department Graphic. A printed graphic with schematic diagrams of the building automatic sprinkler systems, fire alarm systems, means of egress, standpipe systems, smoke exhaust systems, access doors, and any other equipment as required by the

fire code official shall be superimposed over a building floor plan or site plan and mounted on the wall in a highly visible location in the fire control room. The graphic shall be durable and waterproofed.

914.12.5 Standby Power. A standby power generator conforming to the California electrical code shall be provided on the premises, in a protected location. The generator shall have a rated capacity necessary to supply the load of all fire protection features listed below at the same time:

1. Emergency lighting and exit signs necessary for egress.

2. Lighting for the fire control room.

3. Signal and communication systems as applicable.

4. Electrically powered fire pumps required to maintain pressure.

5. Mechanical smoke exhaust systems as required by section 914.12.2.

In addition, a fuel supply sufficient for not less than two hours of operation shall be required on the premises. All electrically connected systems shall be transferred within 60 seconds after losing primary power.

914.12.6 Enhanced Communications. When required by the fire code official, enhanced communication equipment, such as bi-directional amplifiers, shall be provided in the building for dedicated use by the fire department. When such equipment is required to be installed, it shall be provided with a standby power supply.

914.12.7 Other Requirements. All fire protection systems shall comply with fire department standards regarding installation, signage and labeling, maintenance, and other requirements as specified by the fire code official.

15.20.550: EMERGENCY RESPONDER RADIO COVERAGE IN EXISTING BUILDINGS

Section 1103.2 of the California Fire Code is hereby amended to read as follows:

~~§~~1103.2 Criteria 2: Within one (1) year of completion date. All plans and permits shall be submitted for review within six (6) months of completion date.

15.20.~~520550~~560: FIREWORKS:

Section 5608 of the California Fire Code is hereby added to read as follows:

"Fireworks" means any device containing chemical elements and chemical compounds capable of burning independently of the oxygen of the atmosphere and producing audible, visual, mechanical, or thermal effect which are useful as pyrotechnic devices or for

entertainment. The term "Fireworks" includes, but is not limited to, devices designated by the manufacturer as Fireworks, firecrackers, torpedoes, skyrockets, roman candles, rockets, sparklers, chasers, fountains, smoke sparks, aerial bombs, and Fireworks kits. "Fireworks" includes both "dangerous Fireworks" and "safe and sane" Fireworks as defined in the California Health and Safety Code.

15.20.~~520.560~~570 1: MINOR CHARGE:

"Minor charge" is a person under the age of eighteen (18) years for whom a responsible guardian has the legal care, custody or control.

15.20.~~520570~~580.2: PROPERTY:

"Property" shall mean any private property; including but not limited to, a residence, yard, or field, whether or not occupied as a dwelling, and whether owned, leased, rented or used with or without compensation.

15.20.~~520580~~590.3: RESPONSE COSTS:

"Response costs" means those reasonable and necessary costs directly incurred by City public safety or other personnel for a response to an unpermitted discharge or illegal storage of fireworks, and include the cost of providing law enforcement, firefighting, or other services arising from the unpermitted discharge or illegal storage, maintaining or handling of fireworks, including but not limited to:

A. Salaries and benefits of public safety or other personnel for the amount of time spent responding to, remaining at, or otherwise dealing with the unpermitted discharge or illegal storage of fireworks, and the administrative costs attributable to any response;

B. The cost of any medical treatment to or for any public safety personnel injured responding to, remaining at, or leaving the scene of the unpermitted discharge or illegal storage of fireworks;

C. The cost of repairing or replacing any public safety equipment or property damage, and the cost of use of any such equipment, in responding to, remaining at, or leaving the scene of any unpermitted discharge or illegal storage of fireworks; and

D. The disposal cost of confiscated fireworks.

15.20.~~520590~~600.4: RESPONSIBLE GUARDIAN:

"Responsible guardian" means a parent, guardian or other person having the legal care, custody, or control of his or her minor charge.

15.20.~~520600~~610.5: PROHIBITION:

Except as otherwise provided in this Code, no person shall have in his or her possession, or keep, store, use, shoot, discharge, set off, ignite, explode, manufacture, sell, offer to sell, give, transport, or improperly dispose of any fireworks or dangerous or safe and sane fireworks.

A. Except where otherwise expressly provided in this Code or under a permit issued by the California State Fire Marshal or the Fire Chief, it shall be unlawful for any person to possess, offer for sale, or store any fireworks.

B. Except where otherwise expressly provided in this Code, it shall be unlawful for any property owner or tenant to allow or permit the possession, sale, use or discharge of fireworks at or on their property when the property owner or tenant knows or should know of the possession, sale, use or discharge of fireworks at or on such property.

C. The Fire Chief and his or her authorized representatives shall have the authority to seize, take, and remove any fireworks, dangerous fireworks, and safe and sane fireworks. The Fire Chief and his authorized representatives may charge any person whose fireworks are seized pursuant to this section.

D. Every person who causes, aids, abets or conceals a violation of the California Fire Code is guilty of violating the California Fire Code. Each such person, corporation or firm shall be deemed guilty of a misdemeanor of a separate offense for each day or portion thereof during which any violation of any provision of the California Fire Code is committed, continued, permitted or maintained by such person, firm or corporation.

15.20.~~520610~~620.6: APPLICATION OF STATE LAW:

Nothing in this section 15.20.520 shall limit any of the penalties provided in the California Health and Safety Code or the California Penal Code with regard to the offer for sale, exposing for sale, sale at retail, use or discharge of any fireworks.

15.20.~~520620~~630.7: LIABILITY FOR RESPONSE COSTS:

A. Any person who violates this section 15.20.520 shall be liable for response costs incurred in responding to the unpermitted use, discharge or storage of fireworks.

B. If a person who violated this section 15.20.520 is a minor charge, the responsible guardian of the minor charge and the minor charge shall be jointly and severally liable for the response costs incurred pursuant to this section 15.20.520.

C. To incur liability for response costs imposed by this section 15.20.520, a person who violates this section 15.20.520 need not be present at the event that causes the response giving rise to the imposition of response costs.

D. Response costs imposed by this section 15.20.520 are in addition to any other costs that may be recovered under this Code or State law.

15.20.~~530630~~640: WILDLAND-URBAN INTERFACE FIRE AREA:

Section 4902.1 the definition of the Local Responsibility Area (LRA) is hereby added to read as follows:

> Local Responsibility Area (LRA) is defined as lands within the geographical boundaries found in the map within the city of Redlands general plan figure 8.1.

15.20.~~540640~~650: VEGETATION MANAGEMENT

Section 490~~8~~6.1.1 of the California fire code is hereby added to read as follows:

> ~~Section 4908 Vegetation Management~~
>
> 490~~8~~6.1.1 ~~Vegetation~~ ~~Management~~Maintenance. Persons owning, leasing, controlling, operating or maintaining buildings or structures in, upon or adjoining hazardous fire areas, and persons owning, leasing or controlling land adjacent to such buildings or structures, shall at all times:
>
> Maintain an effective fuel modification zone by removing, clearing, or modifying away combustible vegetation and other flammable materials from areas within 100 feet from such buildings or structures. (See exception 3 for fire-resistive construction and other features for approval and/or a reduction of the fuel modification zone.) The fuel modification zone may be replanted with either approved irrigated, fire-resistant planting material or approved non-irrigated, drought-tolerant, fire-resistant plant material. Use of plants, trees, and/or shrubs on the Redlands fire department wildland urban interface high fire severity area undesirable list, must be specifically approved by the fire code official. Use of any of the plantings on the list is subject to periodic, ongoing inspections by the fire department to ensure proper maintenance. Inspections may incur fees payable by the property owner. Failure to maintain the plants and trees on this list in accordance with plan approval could result in the plants, trees, and/or shrubs being ordered to be removed at the expense of the property owner. Replanting of the fuel modification zone may be required for erosion control.
>
> Exceptions:
>
> 1. Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided that they do not form a means of rapidly transmitting fire from the native growth to any structure.
>
> 2. Grass and other vegetation located more than 30 feet from buildings or structures and less than 18 inches (457 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.
>
> 3. With the approval of the fire code official, the width of the fuel modification zone may be reduced where fire-resistive structures or other features are constructed. However, in no case shall the fuel modification zone be reduced to less than 30 feet. See

California building code chapter 7A and international wildland-urban interface code for the minimum requirements of a fire-resistive structure.

Remove portions of trees, which extend within 10 feet of the outlet of a chimney,

Maintain trees adjacent to or overhanging a building free of deadwood, and

Maintain the roof of a structure free of leaves, needles or other dead vegetative growth.

If the owner fails to correct such conditions, the fire code official is authorized to cause the same to be done and make the expense of such correction a lien upon the property where such condition exists.

~~15.20.550: DEFENSIBLE SPACE:~~

~~Section 4907.1 of the California fire code is hereby added to read as follows:~~

~~Section 4907.1 Defensible Space~~

~~4907.1 General. Persons owning or controlling property within the city's very high fire hazard severity zone shall maintain defensible space as prescribed by the fire protection plan, site specific conditions, or as approved by the fire code official per sections 4908 and 4909 of this code.~~

15.20.~~550~~660: DEFENSIBLE SPACE

Section 4907.4 of the California fire code is hereby added to read as follows:

~~§~~4907.4 Defensible space zones. All existing habitable buildings and structures withing the Very High Fire Hazard Severity Zone (VHFHSZ) shall maintain defensible space in accordance with sections 4907.4.1, 4907.4.2, and 4907.4.3. The fire code official may require additional fuel modification measures to be taken by the property owner when extreme hazardous vegetation conditions are present.

~~§~~4907.4.1 Zone Zero (0-5 feet) – Ember Resistant. Zone zero zones shall be maintained in accordance with sections 4907.4.1.1 through 4907.4.1.8.

~~§~~4907.4.1.1 Vegetation. Vegetation shall be in accordance with the following:

1. Ornamental and native shrubs shall be thinned, relocated, or removed to provide no more than fifty (50) percent density and/or coverage and shall be positioned to limit plan continuity and inhibit fire progression.
2. Remove all dead, dying, or diseased vegetation, including where applicable on portions of live vegetation and dead, dying, or diseased grass, plants, shrubs, branches, leaves, and weeds.
3. Maintain grasses to a maximum height of four (4) inches.

4. Maintain large shrubs and hedges exceeding six (6) feet in height such that limbs are not within 4 feet of the ground or one-third of its height, whichever is less.
5. Vines are to be limited on the structure.
6. Vegetation under windows shall be kept to below eighteen (18) inches.
7. Consideration shall be given to properties with more fire-resistive construction, lower flammability plant species, and frequent irrigation.

~~§~~4907.4.1.2 Tree Maintenance. Tree maintenance shall be in accordance with the following:

1. Trees shall be maintained (i.e., cleaned, thinned, raised) to reduce the spread of fire.
2. Tree branches shall have six (6) feet of clearance above roofs, combustible fences, combustible structures, and the ground. Additional clearance equal to three (3) times the height of the shrub is needed if shrubs are located under tree branches.
3. Dead, dying, or diseased trees shall be removed. An evaluation by a licensed arborist with recommendations on removal of dying or diseased trees may be required by the fire code official.

~~§~~4907.4.1.3 Balconies, Overhangs, and Porches. The underside of balconies, overhangs, and porches shall be kept clear of combustible vegetation.

~~§~~4907.4.1.4 Organic Wood Chips and Mulch. Organic mulch and wood chip application is prohibited. Non-combustible materials such as concrete, gravel, decomposed granite, or other approved materials shall be used within this zone.

~~§~~4907.4.1.~~4~~5 Firewood. Firewood shall not be stored within this zone.

~~§~~4907.4.1.~~5~~6 Chimneys. All chimneys shall have a spark arrestor and all branches shall be a minimum of ten (10) feet from chimneys, stovepipe outlet, and heater outlets.

~~§~~4907.4.1.~~6~~7 Propane Tanks. Dead, dying, or diseased vegetation shall be removed from within ten (10) feet of propane tanks.

~~§~~4907.4.1.~~7~~8 Roofs and Gutters. Maintain the roof and gutters to be free of leaves, needles, or other vegetation.

~~§~~4907.4.1.~~8~~9 Firefighter Access. Remove hazardous items that would hinder existing firefighter access to all sides of the structure.

~~§~~4907.4.2 Zone One (5-30 feet) – Lean, Clean, and Green Zone. Zone one zones shall be maintained in accordance with sections 4907.4.2.1 through 4907.4.2.5.

~~§~~4907.4.2.1 Vegetation. Vegetation shall be in accordance with the following:

1. Ornamental and native shrubs shall be thinned, relocated, or removed to provide no more than fifty (50) percent density and/or coverage and shall be positioned to limit plan continuity and inhibit fire progression.
2. Remove all dead, dying, or diseased vegetation, including where applicable on portions of live vegetation and dead, dying, or diseased grass, plants, shrubs, branches, leaves, and weeds.
3. Maintain grasses to a maximum height of four (4) inches.
4. Maintain large shrubs and hedges exceeding six (6) feet in height such that limbs are not within 4 feet of the ground or one-third of its height, whichever is less.
5. Consideration shall be given to properties with more fire-resistive construction, lower flammability plant species, and frequent irrigation.

§4907.4.2.2 Tree Maintenance. Tree maintenance shall be in accordance with the following:

1. Trees shall be maintained (i.e., cleaned, thinned, raised) to reduce the spread of fire.
2. Tree branches shall have six (6) feet of clearance above roofs, combustible fences, combustible structures, and the ground. Additional clearance equal to three (3) times the height of the shrub is needed if shrubs are located under tree branches.
3. Dead, dying, or diseased trees shall be removed. An evaluation by a licensed arborist with recommendations on removal of dying or diseased trees may be required by the fire code official.

§4907.4.2.3 Organic Wood Chips and Mulch. Organic mulch and wood chips shall be kept at a depth of three (3) inches.

§4907.4.2.4 Propane Tanks. Dead, dying, or diseased vegetation shall be removed from within ten (10) feet of propane tanks.

§4907.4.2.5 Firefighter Access. Remove hazardous items that would hinder existing firefighter access to all sides of the structure.

§4907.4.3 Zone Two (30-100 feet) – Fuel Reduction Zone. Zone one zones shall be maintained in accordance with sections 4907.4.3.1 through 4907.4.3.5.

§4907.4.3.1 Vegetation. Vegetation shall be in accordance with the following:

1. Ornamental and native shrubs shall be thinned, relocated, or removed to provide no more than sixty (60) percent density and/or coverage and shall be positioned to limit plan continuity and inhibit fire progression.
2. Remove all dead, dying, or diseased vegetation, including where applicable on portions of live vegetation and dead, dying, or diseased grass, plants, shrubs, branches, leaves, and weeds.
3. Maintain grasses to a maximum height of eighteen (18) inches.

4. Maintain large shrubs and hedges exceeding six (6) feet in height such that limbs are not within four (4) feet of the ground or one-third of its height, whichever is less.
5. Consideration shall be given to properties with more fire-resistive construction, lower flammability plant species, and frequent irrigation.

§4907.4.3.2 Tree Maintenance. Tree maintenance shall be in accordance with the following:

1. Trees shall be maintained (i.e., cleaned, thinned, raised) to reduce the spread of fire.
2. Tree branches shall have six (6) feet of clearance above roofs, combustible fences, combustible structures, and the ground. Additional clearance equal to three (3) times the height of the shrub is needed if shrubs are located under tree branches.
3. Dead, dying, or diseased trees shall be removed. An evaluation by a licensed arborist with recommendations on removal of dying or diseased trees may be required by the fire code official.
4. All exposed wood piles shall have a minimum of ten (10) feet of clearance down to bare mineral soil in all direction.

§4907.4.3.3 Organic Wood Chips and Mulch. Organic mulch and wood chips shall be kept at a depth of three (3) inches.

§4907.4.3.4 Propane Tanks. Dead, dying, or diseased vegetation shall be removed from within ten (10) feet of propane tanks.

§4907.4.3.5 Firefighter Access. Remove hazardous items that would hinder existing firefighter access to all sides of the structure.

15.20.560660670: FIRE PROTECTION PLAN:

Section 49094903 of the California fire code is hereby addedamended to read as follows:

Section 49094903 Fire Protection Plan

49094903.1 General. A fire protection plan (FPP), approved by the fire code official, shall be required for all new development within the wildland-urban interface area.

The FPP shall include mitigation measures consistent with the unique problems resulting from the location, topography, geology, flammable vegetation, and climate of the proposed site.

The FPP shall address water supply, access, building ignition and fire resistance, fire protection systems and equipment, defensible space and vegetation management.

The FPP shall be consistent with the requirements of California building code chapter 7A, and the international wildland-urban interface code, and the Redlands municipal code.

15.20.~~570670~~680: APPENDIX B:

Section B105.2 of appendix B of the California fire code is hereby amended by amending the exception to read as follows:

> Exception: A reduction in required fire-flow of up to 50 percent (50%), as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than 1,500 gallons per minute (5678 l/min) for the prescribed duration as specified in table B105.1(2).

15.20.~~580680~~690: APPENDIX BB:

Section BB105.1 of appendix BB of the California fire code is hereby amended by amending the exception to read as follows:

> Exception: A reduction in required fire-flow of up to 50 percent (50%), is allowed when the building is provided with an approved automatic sprinkler system. When a reduction in fire flow is used, fire flow shall not be less than 1500 gpm.

15.20.~~590690~~700: APPENDIX C:

Appendix C is hereby adopted in its entirety without amendments or deletions.

15.20.~~600700~~710: APPENDIX CC:

Appendix CC is hereby adopted in its entirety without amendments or deletions.

15.20.~~610710~~720: APPENDIX D:

Appendix D is hereby adopted in its entirety with the following additions and amendments:

> Section D101.2 of appendix D of the California fire code is hereby added to read as follows:
>
> > D101.2 Construction Documents. Construction documents for proposed fire apparatus access location of fire lanes, security gates across fire apparatus access and construction documents and hydraulic calculations for fire hydrant systems shall be submitted to the fire department for review and approval prior to construction.
>
> Section D101.3 of appendix D of the California fire code is hereby added to read as follows:
>
> > D101.3 Timing of Installation. When fire apparatus access roads or a water supply for fire protection is required to be installed, such protection shall be installed and made

serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles.

Section D102.1 of appendix D of the California fire code is hereby amended to read as follows:

D102.1 Access and Loading. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building thereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet of all portions of the facility and all portions of the exterior wall for the first story of the building as measured by an approved route around the exterior of the building or facility.

Section D103.3 of appendix D of the California fire code is hereby amended to read as follows:

D103.3 Turning Radius. 503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be an inner radius of nineteen ~~(19)~~ (20) feet and outer radius of ~~thirty-one (31)~~ forty (40) feet.

Section D103.4 of appendix D of the California fire code is hereby amended to read as follows:

D103.4 Dead Ends. Dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved area for turning around fire apparatus.

Section D103.7 of appendix D of the California fire code is hereby added to read as follows:

D103.7 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus weighing at least 75,000 pounds. The roadway shall be surfaced so as to provide all weather driving capabilities.

Section D103.8 of appendix D of the California fire code is hereby added to read as follows:

D103.8 Authority. The fire code official shall have the authority to require an increase in the minimum access width where they are inadequate for fire or rescue operations.

Section D103.9 of appendix D of the California fire code is hereby added to read as follows:

D103.9 Bygone Roadways. Where fire department access is unduly difficult utilizing bygone roadways, and where modifications would significantly impact the historical significance of the area, the fire chief may authorize alternative means and methods in order to maintain fire department access. Methods may include but are not limited to the posting of signs and notices of parking requirements in order to maintain access.

15.20.~~720~~730: APPENDIX O

Section O~~0~~101.2 of the California fire code is hereby amended to read as follows:

> ~~§~~O101.2 Permits. An operational permit shall be required for haunted houses, ghost walks or similar uses in accordance with Appendix O101.2. Permit applications and documents shall be submitted within three (3) weeks of occupancy date. Additional permits shall be obtained from local building department as required for any structural, electrical, or other modifications.

Section ~~0~~O103.2 of the California fire code is hereby amended to read as follows:

> ~~§~~O103.2 Tents or membrane structures. Tents and membrane structures may be used when in compliance with all applicable requirements of this regulation, chapter 31 of this code, and when the total floor area of the tent is less than 1,000 square feet and the travel distance to an exit from any location is less than fifty (50) feet.

Section ~~0~~O103.7 of the California fire code is hereby amended to read as follows

> ~~§~~O103.7 ~~Add~~ Exception ~~#~~2: Existing unsprinklered assembly spaces, such as gymnasiums, when used for assembly purposes such as grad night.

Section ~~0~~O103.7.1.1 of the California fire code is hereby amended to read as follows:

> ~~§~~O103.7.1.1 Obstructions. Fire sprinkler systems and piping, when provided, shall not be obstructed, altered, or used to support any decorations.

Section ~~0~~O103.7.2.1 of the California fire code is hereby amended to read as follows:

> ~~§~~O103.7.2.1 Obstructions. Automatic smoke detection systems or devices, when present, shall not be obstructed, altered, or turned off.

Section ~~0~~O103.7.4 of the California fire code is hereby added to read as follows:

> ~~§~~O103.7.4 Add Exception. When the total floor area of the tent is less than 1,000 square feet and the travel distance to an exit from any location is less than fifty (50) feet, manually activated devices suitable for sounding an alarm or another approved method of alerting staff shall be provided as approved by the fire code official.

Section ~~0~~O103.9.1 of the California fire code is hereby amended to read as follows:

> ~~§~~O103.9.1 Flame retardant. All decorative materials shall be both inherently flame retardant, labeled as such, or be treated with a listed flame-retardant material registered with the California State Fire Marshal. If the material is treated by the user, a container and receipt will serve as proof.

Section ~~0~~O103.12 of the California fire code is hereby amended to read as follows:

> ~~§~~O103.12 Inspections. A fire and life safety inspection shall be conducted by the fire department prior to the start of the event. Final building department inspection and sign-off shall be made in conjunction with the fire department.

15.20.~~620730~~740: VIOLATION; PENALTY:

A. It is unlawful to violate or fail to comply with any of the provisions of the California fire code, or to fail to comply with any order made pursuant thereto. It is also unlawful to build in violation of any detailed statement of plans or specifications submitted and approved under the California fire code, or any certificate or permit issued thereunder, and from which no appeal has been taken.

B. Except as otherwise specified in this chapter, all violations of the California fire code or its appendices, or the amendments thereto contained in this chapter, are misdemeanors and are punishable as provided in title 1, chapter 1.20 of this code.

C. Every person who causes, aids, abets or conceals a violation of the California fire code is guilty of violating the California fire code. Each such person, corporation or firm shall be deemed guilty of a separate offense for each day or portion thereof during which any violation of any provisions of the California fire code is committed, continued, permitted or maintained by such person, firm or corporation."

Section 2. If any subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction or preempted by State or Federal legislation, such decision or legislation shall not affect the validity of the remaining portions of this Ordinance. The City Council declares that it would have passed this Ordinance and each and every subsection, sentence, clause or phrase not declared invalid or unconstitutional without regard to any such decision or preemptive legislation.

Section 3. The provisions of this Ordinance shall be in force on and after the date upon which this Ordinance becomes effective; provided, however, that where complete plans for buildings have been filed and are pending for building permits prior to the effective date of this Ordinance, permits may be issued in compliance with the governing laws at the time of review and approval of such plans, and the applicant may proceed with construction, provided physical construction is commenced within one hundred eighty (180) days from the date of issuance of the permit and continued to completion.

Section 4. Unless superseded and expressly repealed, references in City forms, documents and regulations to Chapter 15.20 of the Redlands Municipal Code and to the former edition of the California Fire Code shall be construed to apply to the corresponding provisions of Chapter 15.20 of the Redlands Municipal Code and the 2022~~19~~ edition of the California Fire Code as adopted and established by this Ordinance.

Section 5. The City Council hereby determines that the adoption of this Ordinance is exempt from review under the California Environmental Quality Act ("CEQA") pursuant to State CEQA Guidelines Section 15061(b)(3) for the reason that it can be seen with certainty there is no possibility that the adoption of this Ordinance will have a significant effect on the environment.

Section 6. The City Clerk is hereby directed to publish notice in a newspaper of general circulation within the City, in accordance with Government Code section 6066, of the scheduling of a public hearing to consider adoption of this Ordinance on December 6, 2022~~December 3, 2019~~. The notice shall state the time and place of the hearing, and shall also state that copies of the California Fire Code, 2022~~19~~ edition, and the proposed amendments thereto, are on file with the office of the City Clerk and open to public inspection. The notice shall also contain a description which the City Council deems sufficient to serve notice to the interested persons of the purpose of this Ordinance and the subject matter hereof. The City Council further delegates the determination of such sufficiency to the City Manager.

Section 7. The Mayor shall sign this Ordinance and the City Clerk shall certify to the adoption of this Ordinance and shall cause it, or a summary of it, to be published once in a newspaper of general circulation within the City, and thereafter, this Ordinance shall take effect as provided by law.

_____
Paul T. Barich Mayor

ATTEST:

_____
Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk, City of Redlands, hereby certify that the foregoing Ordinance was duly adopted by the City Council at the regular meeting thereof, held on the _____ day of _____, 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

ORDINANCE NO. 2948

AN ORDINANCE OF THE CITY OF REDLANDS AMENDING CHAPTER 15.20 OF THE REDLANDS MUNICIPAL CODE AND ADOPTING BY REFERENCE THE 2022 EDITION OF THE CALIFORNIA FIRE CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 9) WITH NECESSARY LOCAL AMENDMENTS

WHEREAS, Health and Safety Code Section 17958 and Government Code Section 50022 empower the City to adopt by reference the California Building Standards Code, including the California Fire Code; and

WHEREAS, Health and Safety Code Section 17958.5 authorizes the City to make amendments to the California Fire Code on the basis of local climatic, geological or topographical conditions; and

WHEREAS, Health and Safety Code Section 17958.7 requires that before making any modifications or changes pursuant to Health and Safety Code Section 17958.5, the City Council of the City shall make an express finding of local necessity that such modifications or changes are needed; and

WHEREAS, the City Council of the City of Redlands ("City Council") is informed and finds that these climatic, geological and topographical conditions include, but are not limited to, the following conditions;

1. The City receives relatively low amounts of precipitation, and experiences very low relative humidity levels and extremely high temperatures. These climatic conditions are conductive to the spread of fire. For example, the following data was taken from the recorded temperatures and measured rainfall at the San Bernardino County Flood Control District Office, located at 825 East 3rd Street, San Bernardino:

   2019: Maximum temperature greater than 100F recorded during the months of July, August, and September. Total recorded annual rainfall of 18.00 inches, with no rain measured in the months of June, July, August, and October.

   2020: Maximum temperature greater than 100F recorded during the months of July, August, and September. Total recorded annual rainfall of 2.72 inches, with no rain measured in the months of April, May, June, August, September, and October.

   2021: Maximum temperature greater than 100F recorded during the months of July, August, and September. Total recorded annual rainfall of 9.81 inches, with no rain measured in the months of May and November.

2. The City is subject to extremely strong winds, commonly referred to as "Santa Ana Winds," which can reach speeds of more than 40 miles per hour. Extensive damage

often occurs during such winds including downed trees, power lines, utility poles and utility service lines. These adverse conditions cause:

A. Fires.
B. Impairment of emergency apparatus access.
C. Delays in response times of emergency apparatus; and
D. The depletion of apparatus readily available for fire suppression activities.

Specific amendments to the California Fire Code contained in this Ordinance pursuant to this express finding of local necessity are made to sections: 505.1.1 Rooftop Addresses; 903.2.8, 903.2.18 fire sprinklers; 4906.1.1 Vegetation Management; 4907.4, 4907.4.1, 4907.4.1.1, 4907.4.1.2, 4907.4.1.3, 4907.4.1.4, 4907.4.1.5, 4907.4.1.6, 4907.4.1.7, 4907.4.1.8, 4907.4.1.9, 4907.4.2, 4907.4.2.1, 4907.4.2.2, 4907.4.2.3, 4907.4.2.4, 4907.4.2.5, 4907.4.3, 4907.4.3.1, 4907.4.3.2, 4907.4.3.3, 4907.4.3.4, 4907.4.3.5 Defensible Space; Appendix O Temporary Haunted Houses, Ghost Walks, and Similar Amusement Uses.

3. Within the City there are four earthquake faults:

A. Redlands Heights
B. Banning
C. Crafton
D. The Redlands Fault

Numerous other faults lie in close proximity, including the San Andreas Fault. In the event of a severe earthquake, these faults present the potential for catastrophic damage, including extensive damage to buildings, fire damage to major infrastructure including water and sewer distribution lines, roadways, bridges across a major storm drain and railroad right-of-way, and other impairments to the movement of emergency apparatus.

Specific amendments to the California Fire Code contained in this Ordinance pursuant to this express finding of local necessity are made to sections: 505.1.1 Rooftop Addresses; 903.2.8, 903.2.18 fire sprinklers; 4906.1.1 Vegetation Management; 4907.4, 4907.4.1, 4907.4.1.1, 4907.4.1.2, 4907.4.1.3, 4907.4.1.4, 4907.4.1.5, 4907.4.1.6, 4907.4.1.7, 4907.4.1.8, 4907.4.1.9, 4907.4.2, 4907.4.2.1, 4907.4.2.2, 4907.4.2.3, 4907.4.2.4, 4907.4.2.5, 4907.4.3, 4907.4.3.1, 4907.4.3.2, 4907.4.3.3, 4907.4.3.4, 4907.4.3.5 Defensible Space; Appendix O Temporary Haunted Houses, Ghost Walks, and Similar Amusement Uses.

4. Within the City development has occurred, and continues to occur, which has resulted in severe traffic congestion during peak hours, weekends and holidays, particularly on the following streets and highways: Citrus Avenue, Cajon Street, Orange Street, Lugonia Avenue, Colton Avenue, Tennessee Street, San Timoteo Canyon, Interstate 10 Freeway, and Alabama Street; thus decreasing response time. This development includes high-rise structures, institutional, commercial,

industrial and residential structures. Development has occurred within the portion of the City known as Sunset Hills, where roadways have been built in areas of severe topographical conditions including street and driveway grades in excess of 12%. Such traffic congestion and severe roadway conditions extend the time for emergency vehicles to reach the scene of fires and other emergencies.

Specific amendments to the California Fire Code contained in this Ordinance pursuant to this express finding of local necessity are made to sections: 505.1.1 Rooftop Addresses; 903.2.8, 903.2.18 fire sprinklers; 4906.1.1 Vegetation Management; 4907.4, 4907.4.1, 4907.4.1.1, 4907.4.1.2, 4907.4.1.3, 4907.4.1.4, 4907.4.1.5, 4907.4.1.6, 4907.4.1.7, 4907.4.1.8, 4907.4.1.9, 4907.4.2, 4907.4.2.1, 4907.4.2.2, 4907.4.2.3, 4907.4.2.4, 4907.4.2.5, 4907.4.3, 4907.4.3.1, 4907.4.3.2, 4907.4.3.3, 4907.4.3.4, 4907.4.3.5 Defensible Space; Appendix O Temporary Haunted Houses, Ghost Walks, and Similar Amusement Uses.

WHEREAS, this City Council is informed and finds that because the City is subject to the above referenced climatic, geological and topographical conditions, that amendments to the California Fire Code, 2022 Edition, are necessary to protect life and property, and that such amendments address the following issues: (1) high fire hazard areas; (2) water supplies; (3) fire extinguishing systems and sprinkler systems, and (4) the storage, handling and use of flammable and combustible liquids and hazardous materials; and

WHEREAS, this City Council does hereby determine that the modifications to the 2022 California Fire Code, as outlined in this Ordinance, are necessary due to local climatic, geographical and topographical conditions;

THE CITY COUNCIL OF THE CITY OF REDLANDS DOES ORDAIN AS FOLLOWS:

Section 1. Chapter 15.20 of the Redlands Municipal Code, titled, "Fire Code," is hereby deleted in its entirety and rewritten to read as follows:

"Chapter 15.20
FIRE CODE

15.20.010: FINDINGS AND ADOPTION OF THE CALIFORNIA FIRE CODE:
15.20.020: DEFINITIONS:
15.20.030: ESTABLISHMENT OF LIMITS REQUIRED BY THE CALIFORNIA FIRE CODE:
15.20.040: TITLE:
15.20.050: DEPARTMENT OF FIRE PREVENTION:
15.20.060: LIABILITY:
15.20.070: FIRE INVESTIGATIONS:
15.20.080: ANNUAL PERMIT:
15.20.090: PERMIT FEES:
15.20. 100: FEES NOT REFUNDABLE:
15.20. 110: REQUIRED OPERATIONAL PERMITS:
15.20. 120: INSPECTION FEES:
15.20. 130: ELECTRONIC RECORD KEEPING

15.20.140: BOARD OF APPEALS
15.20.150: VIOLATION PENALTIES
15.20. 160: ABATEMENT OF VIOLATION:
15.20.170: FAILURE TO COMPLY:
15.20.180: RELIGIOUS CEREMONIES:
15.20.190: SURFACE AND TURNING RADIUS:
15.20.200: GRADE:
15.20.210: OBSTRUCTION OF FIRE APPARATUS ACCESS ROADS:
15.20.220: PREMISES IDENTIFICATION:
15.20.230: ROOFTOP ADDRESSES
:
15.20.240: FIRE HYDRANTS AND MAINS:
15.20.250: PRIVATE FIRE HYDRANT IDENTIFICATION
15.20.260: PRIVATE FIRE HYDRANT MARKERS
15.20.270: ACCESS TO EQUIPMENT:
15.20.280: SMOKE OR FOG EMITTING SYSTEMS

15.20.290: GROUP -A-1:
15.20.300: GROUP A-2:
15.20.310: GROUP A-3:
15.20.320: GROUP A-4:
15.20.330: GROUP A-5:
15.20.340: GROUP B:
15.20.350: GROUP E:
15.20.360: GROUP F
15.20.370: GROUP M
15.20.380: GROUP R
15.20.390: GROUP S
15.20.400: REPAIR GARAGES
15.20.410: BULK STORAGE OF TIRES
15.20.420: SECTION 903.2.9 AMENDED
15.20.430: STORIES WITHOUT OPENINGS
15.20.440: SECTION 903.2.11.3 AMENDED
15.20.450: GROUT U OCCUPANCY
15.20.460: NFPA13D SPRINKLER SYSTEMS
15.20.470: WATER SUPPLY FOR AREAS WITHOUT CITY WATER SERVICE5.20.480: AREA INCREASE AND RECONSTRUCTION
15.20.490: CHANGE IN USE
15.20.500: ADAPTIVE REUSE
15.20.510: SECTION 905.4 AMENDED
15.20.520: : SMOKE AND HEAT VENTS, MECHANICAL SMOKE EXHAUST SYSTEMS AND DRAFT CURTAINS

15.20.530: SPRINKLER BUILDINGS
15.20.540: SECTION 914.12 ADDED
15.20.550: : EMERGENCY RESPONDER RADIO COVERAGE IN EXISTING BUILDINGS

15.20.560: :FIREWORKS
15.20.570: MINOR CHARGE15.20.580: PROPERTY
15.20.590: RESPONSE COSTS
15.20.600: RESPONSIBLE GUARDIAN
15.20.610: PROHIBITION
15.20.620: APPLICATION OF STATE LAW
15.20.630: LIABILITY FOR RESPONSE COSTS
15.20.640: WILDLANDS-URBAN INTERFACE FIRE AREA
15.20.650: VEGETATION MANAGEMENT
15.20.660: DEFENSIBLE SPACE
15.20.670: FIRE PROTECTION PLAN
15.20.680: APPENDIX B
15.20.690: APPENDIX BB
15.20.700: APPENDIX C
15.20.710: APPENDIX CC
15.20.720: APPENDIX D
15.20.730: APPENDIX O
15.20.740: VIOLATION PENALTY

15.20.010: FINDINGS AND ADOPTION OF THE CALIFORNIA FIRE CODE:

A. Findings: The City Council of the City of Redlands hereby finds and determines:

1. That the International Code Council is a private organization which has been in existence for a period of at least three (3) years.

2. That the International Fire Code, 2021 edition, published by said organization, is a nationally recognized compilation of proposed rules, regulations, and standards of said organization.

3. That the international fire code has been printed and published as a code in book form within the meaning of section 50022.2 et seq., of the California Government Code.

4. That the California fire code, also known as the California code of regulations, title 24, part 9, a portion of the "California building standards code" as defined in the "California building standards law" commencing with section 18901 of the Health And Safety Code, is assigned to the California building standards commission, which by law is responsible for approving all building standards within the state of California. The 2022 edition of the California fire code incorporates by reference the 2021 edition of the international fire code, with necessary California amendments.

5. That a copy of the 2022 California fire code, certified by the city clerk of the city of Redlands to be a true copy, has been filed for use and examination by the public in the fire prevention office of the Redlands fire department and the office of the city clerk.

6. The sections of said California fire code may be referred to by the number used in said published compilation, preceded by the words "California fire code section" or "fire code section", and may also be referred to by additional reference to this municipal code and sections therein pertaining to said California fire code.

7. That the additional requirements and standards established herein are needed to properly protect the health, safety, and welfare of the existing and future residents and workers within the city of Redlands. Said requirements and standards are reasonably necessary because of local climatic, geological, and topographical conditions, and comply with existing state laws and regulations.

8. The city council finds and determines that the local variances from the California fire code - building standards, California code of regulations, title 24, part 9, contained in the city fire code, are reasonably necessary because of local climatic, topographic and geographical considerations.

B. Adoption Of The California Fire Code: The city council of the city of Redlands hereby adopts by reference, the 2022 California fire code, and appendices B, BB, C, CC, and D, including fees and penalties, as compiled and adopted by the California building standards commission; along with certain amendments, additions, deletions and exceptions based upon the city council's findings that the same are necessary based upon local climatic, geologic and topographical conditions. The provisions of the California fire code, California fire code appendix chapters, and the California fire code appendices shall be applicable in all areas within the city of Redlands. The city council of the city of Redlands hereby adopts and amends the 2022 edition of the California fire code, as compiled and published by the California building standards commission.

15.20.020: DEFINITIONS:

A. Wherever the word "jurisdiction" is used in the fire code, it shall mean the city of Redlands.

B. Wherever the term "corporation counsel" is used in the fire code, it shall mean the city attorney for the city of Redlands.

C. Wherever the term "fire chief" is used in the fire code, it shall mean the fire chief of the city of Redlands, or his or her authorized representative.

D. Wherever the term "fire department" is used in the fire code, it shall mean the fire department of the city of Redlands.

E. An employee of the city of Redlands fire department, when enforcing the California fire code, this municipal code and other laws, rules and regulations relating to fire and life safety, fire prevention and fire investigation, shall be deemed a "peace officer" as those words are used in section 830.31 of the California Penal Code.

F. Whenever the term "fire marshal" is used in the fire code, it shall mean the supervisor of the fire prevention bureau and shall serve as the fire code official under the direction of the fire chief, or the fire chief's authorized representative. The community risk reduction division of

the fire department shall be responsible for fire prevention department duties within the city of Redlands.

15.20.030: ESTABLISHMENT OF LIMITS REQUIRED BY THE CALIFORNIA FIRE CODE:

A. Storage of Flammable Cryogenic Fluids: Pursuant to section 5504.1 of the California fire code, flammable cryogenic fluids shall not be permitted to be stored, dispensed, or used unless, in the opinion of the fire code official, such storage will not create an unacceptable threat to the occupants and property owners.

B. Storage of Explosives and Blasting Agents: Pursuant to section 5601.1 of the California fire code, the storage of explosives and blasting agents is prohibited in all areas unless authorized by the fire code official.

C. Storage Of Class I And II Liquids: Pursuant to sections 5704.1 and 5706.1 of the California fire code, the storage of class I and class II liquids in outside aboveground unprotected tanks is prohibited in all areas of the city unless the fire code official determines, with specific documented findings, that such an installation will not create a hazard to life or property in the area.

D. Storage Of Liquefied Petroleum Gases: Pursuant to section 6101.3 of the California fire code, the aggregate capacity of any one installation for the bulk storage of liquefied petroleum gases shall not exceed two thousand (2,000) water gallons (7571 liters) in commercial, residential and other areas where, in the opinion of the fire code official, the location of bulk storage of liquefied petroleum gases would create a threat to life and property.

15.20.040: TITLE:

Section 101.1 of chapter 1, division II of the California fire code is hereby amended to read as follows:

> 101.1 Title. These regulations shall be known as the fire code of the city of Redlands, hereinafter referred to for purposes of this chapter 15.20 as "this code."

15.20.050: DEPARTMENT OF FIRE PREVENTION:

Section 103.2 of chapter 1, division II of the California fire code is hereby deleted.

15.20.060: LIABILITY:

Section 104.13 of chapter 1, division II of the California fire code is hereby added to read as follows:

> 104.13.1 Cost Recovery. Fire suppression, investigation and rescue or emergency medical costs are recoverable in accordance with Health and Safety Code sections 13009 and 13009.1. Any person who negligently or intentionally, or in violation of law, causes an

emergency response, including but not limited to, a traffic accident or spill of toxic or flammable fluids or chemicals, is liable for the costs of securing such emergency, including those costs set out in Health And Safety Code section 13009 et seq. and Government Code section 53150 et seq. Any expense incurred by the city for securing such an emergency situation shall constitute a debt of such person and shall be collectible by the city in the same manner as in the case of an obligation under contract, expressed or implied.

A false fire alarm response fee may be imposed and paid after two (2) false fire alarms have been received from any one residential or commercial source, or from any one alarm system, within any consecutive three hundred sixty five (365) day period. The false alarm response fee shall be established by resolution of the city council.

104.13.2 Expense for Securing an Emergency. The expense of securing any emergency or hazard which is the result of a violation of this code or any other code, ordinance or state law, or any damages caused by malicious mischief requiring any corrective or preventive actions conducted by the city may be a charge against the persons or entity whose such emergency or action may constitute a debt of such persons or entity as provided below.

1. The fire chief, or duly authorized representative, may impose the reasonable cost of fire prevention, fire suppression, and protection of the public from other safety hazards when a fire or hazardous condition results from any of the following activities or conditions:

A. Manufacture, transportation, storage, handling, or spilling of hazardous chemicals, flammable or combustible liquids, explosives, or blasting agents;

B. Failure to correct a hazardous condition for which a "notice of violation," or equivalent notice, has been previously given by the chief, or duly authorized representative;

C. Use of welding equipment, cutting torch, tar pot, or other open flame device;

D. Permitting or causing the accumulation of hazardous or flammable materials;

E. Setting of a fire or allowing a fire to be set in violation of any code, ordinance, law or regulation;

F. Creating, allowing, or maintaining a fire hazard.

15.20.070: FIRE INVESTIGATIONS:

Section 104.11 of chapter 1, division II of the California fire code is hereby amended to read as follows:

104.11 Fire Investigations. The fire code official and the fire department shall investigate the cause, origin and circumstances of any fire, explosion and other hazardous condition. Information that could be related to trade secrets or processes shall not be made part of the public record except as required by law.

The fire chief or duly authorized representative, is authorized to investigate the cause, origin and circumstances of unauthorized releases of hazardous materials. The Redlands police department and allied law enforcement agencies are authorized to assist the fire department in its investigations when requested to do so.

15.20.080: ANNUAL PERMIT:

Section 105.1.6 of chapter 1, division II of the California fire code is hereby deleted.

15.20.090: PERMIT FEES:

Section 105.2.5 of chapter 1, division II of the California fire code is hereby added to read as follows:

105.2.5 Permit Fees. Permit fees as established by city council resolution shall be collected by the finance department. Proof of receipt shall accompany all applications for permit prior to any inspection and approval by the city.

15.20.100: FEES NONREFUNDABLE:

Section 105.2.6 of chapter 1, division II of the California fire code is hereby added to read as follows:

105.2.6 Fees Not Refundable. Permit fees shall not be refundable for any reason after initiation of plan review or inspection procedures.

15.20.110: REQUIRED OPERATIONAL PERMITS:

Section 105.5.50 of chapter 1, division II of the California fire code is hereby added to read as follows:

105.5.55 Fixed Kitchen Hood and Duct Extinguishing System. An operational permit is required to utilize commercial cooking appliances, as defined in Section 602, with a fixed hood and duct fire extinguishing system

105.5.56 – Temporary Haunted Houses, Ghost Walks, and Similar Amusement uses. An operational permit is required in accordance with Appendix O for temporary haunted houses, ghost walks, and similar amusement uses.

15.20.120: INSPECTION FEES:

Section 107.7 of chapter 1, division II of the California fire code is hereby added to read as follows:

> 107.7 Inspection Fees. The fire code official is authorized to impose and collect appropriate fees for inspections established by resolution of the city council.

15.20.130: ELECTRONIC RECORD KEEPING

Section 109.3.1 of chapter 1, division II of California Fire Code is hereby added to read as follows:

> 109.3.1. Electronic Record Keeping. The Fire Code Official is authorized to require electronic format submittals for fire protection systems maintenance records.

15.20.140: BOARD OF APPEALS:

Section 111 of chapter 1, division II of the California fire code is hereby amended to read as follows:

> 111.1 Board of Appeals. The city planning commission shall serve as the board of appeals. The chief building official, director of development services and the fire chief of the city, or their respective designees, shall serve in an advisory capacity when requested to do so. Board members shall disqualify themselves and shall not participate in any decision in which they have a conflict of interest.

15.20.150: VIOLATION PENALTIES:

Section 112.4 of chapter 1, division II of the California fire code is hereby amended to read as follows:

> 112.4.1 Administrative Citation Process Violation Penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of a misdemeanor, punishable by a fine of one thousand dollars ($1,000.00) a day or by imprisonment not exceeding six months, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense. The city may also prosecute or enforce violations of this chapter as a criminal offense in accordance with this section.

15.20.160: ABATEMENT OF VIOLATION:

Section .112.4of chapter 1, division II of the California fire code is hereby amended to read as follows:

> 112.4.1 Abatement of Violation. In addition to the imposition of the penalties herein described, the fire code official is authorized to institute an appropriate action to prevent

unlawful construction or to restrain, correct or abate a violation; or to prevent illegal occupancy of a structure or premises; or to stop an illegal act, conduct of business or occupancy of a structure on or about any premises. The expense of such action may be made a lien upon the property upon which such condition exists.

15.20.170: FAILURE TO COMPLY:

Section 113.4 of chapter 1, division II of the California fire code is hereby amended to read as follows:

113.4 Failure To Comply. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to violation penalties pursuant to section 112.4.

15.20.180: RELIGIOUS CEREMONIES:

Section 308.1.7 of the California fire code is hereby amended to read as follows:

308.1.7 Religious or Other Assembly Ceremonies. Candles held in persons' hands (or on a non-stable device) are especially dangerous and shall not be permitted. Battery operated simulated candles are available and may be used. No permit is required for battery-operated candles or other electric candles.

15.20.190: SURFACE AND TURNING RADIUS:

Section 503.2.3 of the California fire code is hereby amended to read as follows:

503.2.3 Surface §503.2.3 Fire apparatus access roads for purposes of rapid and reliable fire apparatus access shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds. Fire apparatus access roads shall be surfaced with an approved concrete or asphalt covering so as to provide all-weather driving capabilities. Turf block, Ritter Rings, Turf Paver and other similar products shall not be used for fire department access surfacing. Where rural road grades do not exceed 8%, the fire code official may approve access roads of approved native materials or gravel when compacted to ninety-five percent (95%).

TURNING RADIUS

Section 503.2.4 of the California fire code is hereby amended to read as follows:

503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be an inner radius of twenty (20) feet and outer radius of forty (40) feet.

15.20.200: GRADE:

Section 503.2.7 of the California fire code is hereby amended to read as follows:

503.2.7 Grade. The grade of the fire apparatus access road shall be a maximum of twelve percent (12%), unless otherwise approved by the fire code official for short distances when appropriate mitigation measures are utilized.

15.20.210: OBSTRUCTION OF FIRE APPARATUS ACCESS ROADS:

Section 503.4 of the California fire code is hereby amended to read as follows:

503.4 Obstruction of Fire Apparatus Access Roads. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances established in section 503.2.1 shall be maintained at all times. Any obstruction or impedance to reasonable access may be removed at the order of the fire code official or the fire department, with the expense of such removal to be borne by the owner of the roadway, or in the case of an obstructing vehicle or object, by the owner of said vehicle or object.

15.20.220: PREMISES IDENTIFICATION:

Section 505.1 of the California fire code is hereby amended to read as follows:

505.1 Premises Identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabet letters. Numbers shall be affixed on a structure in a location with a clear, unobstructed view from the street. All numbers shall be electrically illuminated during the hours of darkness.

Numbers shall be a minimum of 4 inches high with a minimum stroke width of 0.5 inch for single-family residences.

All multi-family, multi-retail and multi-commercial occupancies shall:

Have a minimum of 6 inch high numbers, with a minimum one inch (1") stroke.

Identify individual units with numbers a minimum of four (4) inches, affixed to the unit's front door entrance or frame. All buildings with a rear door access shall identify that unit with the proper numbers affixed to the door or frame.

All light and heavy industrial occupancies shall have a minimum of ten (10) inch high numbers, with a minimum one-and-one-half inch ($1^1/2$") stroke. All complexes that are three (3) stories or greater in height and/or have two (2) or more building units shall have a minimum of ten (10) inch high numbers, with a one-and-one-half inch ($1^1/2$") stroke.

Buildings with a total floor area of 100,000 square feet (9290 m^2) or greater shall have minimum 12 inch (305 mm) high numbers, with a minimum stroke width of $1^1/2$ inches (38 mm).

All buildings with two (2) or more units shall identify utility meters according to the unit being serviced.

Buildings set-back from the street by 200' or more, shall have additional address number of a minimum of 4" located at the property entrance.

15.20.230: ROOFTOP ADDRESSES

Section 505.1.1 of the California fire code is hereby added to read as follows:

505.1.1 Rooftop Addressing. Buildings exceeding a total square footage of 50,000 square feet shall have rooftop numbers placed parallel to the addressed street for purposes of being visible from the air. The numbers shall be block lettered and shall be a minimum of four (4) feet in height and eighteen (18) inches in width. When more than one street address is assigned to a building, the beginning and ending address numbers are to be placed at opposite ends of the building, indicating the approximate location of the addressed portion of the building.

15.20.240: FIRE HYDRANTS AND MAINS:

Section 507.5.1 of the California fire code is hereby amended to read as follows:

507.5.1 Where Required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 300 feet (91 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exceptions:

1. For group R-3 and group U occupancies, the distance requirement shall be 600 feet (183 m). This distance may be further modified by the fire code official for such occupancies when buildings are equipped throughout with an approved fire sprinkler system installed in accordance with section 903.3.1.3.

2. Deleted.

15.20.250: PRIVATE FIRE HYDRANT IDENTIFICATION

Section 507.5.7: California fire code is hereby added to read as follows:

507.5.7 Private fire hydrants shall be painted OSHA Safety red or equivalent.

15.20.260: PRIVATE FIRE HYDRANT MARKERS

Section 507.5.8: of the California Fire Code is hereby added to read as follows:

507.5.8 Blue reflective pavement markers shall be placed within six (6) inches of the edge of the center lane line on the side of the nearest hydrant.

15.20.270: ACCESS TO EQUIPMENT:

Section 507.5.7:

Section 509.3 of the California fire code is hereby added to read as follows:

509.3 Access to Equipment in Multi-Unit Buildings. When automatic fire sprinkler systems or fire alarm systems are installed in buildings constructed for multiple tenants and these systems protect multiple tenant spaces, the main controls and control appurtenances, such as risers, fire alarm control panels, and valves for such systems, shall be located in an attached or included room or an approved weather-resistant enclosure with at least one exterior access door of not less than 3'-0" by 6'-8".

15.20.280: SMOKE OR FOG EMITTING SYSTEMS:

Section 511 of the California fire code is hereby added to read as follows:

511 Smoke Or Fog Emitting Systems. No alarm system shall be installed in a building or portion of a building which as a part of its operation discharges any gas, vapor, liquid, or other product when the primary intent of the system discharge is to obscure the vision of any person, cause disorientation, or incapacitate any person within the building or portion thereof. Nothing in this section is intended to preclude the connection of an alarm system to any fire suppression system.

15.20.290: GROUP A-1:

Section 903.2.1.1 of the California fire code is hereby amended to read as follows:

903.2.1.1 Group A-1. An automatic sprinkler system shall be provided for group A-1 occupancies.

15.20.300: GROUP A-2:

Section 903.2.1.2 of the California fire code is hereby amended to read as follows:

903.2.1.2 Group A-2. An automatic sprinkler system shall be provided for group A-2 occupancies.

15.20.310: GROUP A-3:

Section 903.2.1.3 of the California fire code is hereby amended to read as follows:

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for group A-3 occupancies.

15.20.320: GROUP A-4:

Section 903.2.1.4 of the California fire code is hereby amended to read as follows:

903.2.1.4 Group A-4. An automatic sprinkler system shall be provided for group A-4 occupancies.

15.20.330: GROUP A-5:

Section 903.2.1.5 of the California fire code is hereby amended to read as follows:

903.2.1.5 Group A-5. An automatic sprinkler system shall be provided for group A-5 occupancies in the following areas: concession stands, retail areas, press boxes, and other accessory use areas in excess of 200 square feet (19 m^2).

15.20.340: GROUP B:

Section 903.2.1.8 of the California fire code is hereby added to read as follows:

903.2.1.8 Group B. An automatic sprinkler system shall be provided throughout all buildings containing group B occupancies where the fire area exceeds 200 square feet (19 m^2).

15.20.350: GROUP E:

Section 903.2.3 of the California fire code is hereby amended to read as follows:

903.2.3 Group E. Except as provided for in sections 903.2.19 for a new public school campus and 903.2.20 (modernization project), an automatic sprinkler system shall be provided for group E occupancies as follows:

1. Throughout all group E fire areas greater than 200 square feet (19 m^2) in area.

2. Throughout every portion of educational buildings below the level of exit discharge.

3. In rooms or areas with special hazards such as laboratories, vocational shops and other such areas where hazardous materials in exempt amounts are used or stored.

15.20.360: GROUP F:

Section 903.2.4 of the California fire code is hereby amended to read as follows:

903.2.4 Group F. An automatic sprinkler system shall be provided throughout all buildings containing group F occupancy where the fire area exceeds 200 square feet (19 m^2).

15.20.370: GROUP M:
Section 903.2.7 of the California fire code is hereby amended to read as follows:
903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a group M occupancy where the fire area exceeds 200 square feet (19 m^2).

15.20.380: GROUP R:

Section 903.2.8 of the California fire code is hereby amended to read as follows:
903.2.8 Group R. An automatic sprinkler system installed in accordance with section 903.3 shall be provided throughout all buildings with a group R fire area.

Exceptions:

1. Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing bedridden clients, not housing non-ambulatory clients above the first floor, and not housing clients above the second floor.

2. Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with Section 435.8.3.3 of the California Building Code.

3. Pursuant to Health and Safety Code, Section 13113, occupancies housing ambulatory children only, none of whom are mentally ill children or children with intellectual disabilities, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.

4. Pursuant to Health and Safety Code, Section 13143.6, occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years), or who is elderly (65 years of age or over).

5. When approved by the fire code official, detached group U private garages or carports accessory to a group R-3 occupancy, not located in the high or very high fire hazard areas of the jurisdiction as identified by California Department of Forestry and Fire Protection.

6. When approved by the fire code official, detached group U private garages or carports accessory to a group R-3 occupancy not located within fifty (50) feet from an adjacent building, structure, and/or property line.

15.20.390: GROUP S:

Section 903.2.9 of the California fire code is hereby amended to read as follows:

903.2.9 Group S. An automatic sprinkler system shall be provided throughout all buildings containing a group S occupancy where the fire area exceeds 200 square feet (19 m^2).

15.20.400: REPAIR GARAGES:

Section 903.2.9.1 of the California fire code is hereby amended to read as follows:

903.2.9.1 Repair Garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with the California building code.

15.20.410: BULK STORAGE OF TIRES:

Section 903.2.9.2 of the California fire code is hereby amended to read as follows:

903.2.9.2 Bulk Storage of Tires. Buildings and structures where the area for the storage of tires exceeds 200 square feet (19 m^2) shall be equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1.

15.20.420: SECTION 903.2.9 AMENDED:

Section 903.2.9 of the California fire code is hereby amended by the deletion of the exception.

15.20.430: STORIES WITHOUT OPENINGS:

Section 903.2.11.1 of the California fire code is hereby amended to read as follows:

903.2.11.1 Stories without Openings. An automatic sprinkler system shall be installed throughout all stories, including basements, of all buildings where the floor area exceeds 200 square feet (19 m^2) and where there is not provided at least one of the following types of exterior wall openings:

1. Openings below grade that lead directly to ground level by an exterior stairway complying with section 1011 or an outside ramp complying with section 1012. Openings shall be located in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on at least one side.

2. Openings entirely above the adjoining ground level totaling at least 20 square feet (1.86 m^2) in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on at least one side.

15.20.440: SECTION 903.2.11.3 AMENDED:

Section 903.2.11.3 of the California fire code is hereby amended by the deletion of the exception.

15.20.450: GROUP U OCCUPANCY:

Section 903.2.18 of the California fire code is hereby amended to read as follows:

903.2.18 Group U Occupancy. An automatic sprinkler system shall be provided throughout buildings containing a group U occupancy where the fire area exceeds 200 square feet (19 m^2).

Exceptions:

1. When approved by the fire code official, group U occupancies, not located in the high or very high fire hazard areas of the jurisdiction as identified by California Department of Forestry and Fire Protection.

2. When a group U occupancy is not located within fifty (50) feet from an adjacent building, structure, and/or property line.

15.20.460: NFPA 13D SPRINKLER SYSTEMS:

Section 903.3.1.3 of the California fire code is hereby amended to read as follows:

903.3.1.3 NFPA 13D Sprinkler Systems. Automatic sprinkler systems installed in one- and two-family dwellings shall be installed throughout in accordance with NFPA 13D, including attached garages.

15.20.470: WATER SUPPLY FOR AREAS WITHOUT CITY WATER SERVICE:

Section 903.3.5.3 of the California fire code is hereby added to read as follows:

903.3.5.3 Water Supply For Areas Without City Water Service. In areas without city water service, buildings where the fire area exceeds 200 square feet (19 m^2) shall be provided with an approved automatic sprinkler system. Group R-3 occupancies shall be provided with on-site water storage for a minimum 10-minute sprinkler demand. When approved by the fire code official, on-site water storage for other than group R occupancies may be reduced to that required for an approved 30-minute sprinkler demand. These flows and duration do not consider the needs required to provide domestic service. All sprinkler systems shall be suitably freeze-protected for climatic conditions when necessary.

Exception: When approved by the fire code official, group U occupancy, not located in the high or very high fire hazard areas of the jurisdiction as identified by California Department of Forestry and Fire Protection.

15.20.480: AREA INCREASE AND RECONSTRUCTION:

Section 903.6.1 of the California fire code is hereby amended by adding the following:

903.6.1 Area Increase and Reconstruction. Every existing building or structure relocated or moved onto a property, every building or structure which as a result of fire, earthquake, or other disaster requires demolition and reconstruction, or every existing building or structure that is receiving or has received an addition(s) in which fifty percent (50%) of the original area is exceeded, shall have an approved automatic sprinkler system installed throughout therein.

15.20.490: CHANGE IN USE:

Section 903.6.2 of the California fire code is hereby amended by adding the following:

903.6.2 Change in Use. Changes made in the character or use of an occupancy shall be approved by the building official and the chief. When there is a change of use or occupancy of a building which exceeds 5,000 square feet in floor area which would place the building in a different division of the same group of occupancy or in a different group of occupancies, the occupancy shall be provided with an approved automatic sprinkler system throughout, unless the proposed use is less hazardous based on fire or life safety risk, than the existing use.

15.20.500: ADAPTIVE REUSE:

Section 903.6.3 of the California fire code is hereby amended by adding the following:

903.6.3 Adaptive Reuse. Every existing group R occupancy that is changed to a commercial use shall have an approved automatic sprinkler system installed throughout.

15.20.510: SECTION 905.4 AMENDED:

Section 905.4 of the California fire code is hereby amended by adding location number 7 to read as follows:

7. When required by other provisions of this code, $2^1/2$ inch hose connections, meeting the requirements of this section and fire department standards, shall be located at every other exterior fire department access door as defined by section 2306.6.1, and arranged so that every portion of the building and its contents can be reached with 150 feet of hose and stream.

15.20.520: SMOKE AND HEAT VENTS, MECHANICAL SMOKE EXHAUST SYSTEMS AND DRAFT CURTAINS:

Section 910.2 of the California fire code is hereby amended to read as follows:

910.2 Where Required. Where required by this code or otherwise installed, smoke and heat vents or mechanical smoke exhaust systems and draft curtains shall conform to the requirements of this section.

Exceptions:

1. Frozen food warehouses used solely for storage of class I and II commodities where protected by an approved automatic sprinkler system.

2. Deleted.

3. Deleted.

15.20.530: SPRINKLERED BUILDINGS:

Section 910.3.5 of the California fire code is hereby amended to read as follows:

910.3.5 Sprinklered Buildings. Where installed in buildings equipped with an approved automatic sprinkler system, smoke and heat vents shall be designed to operate automatically by the actuation of a heat responsive device rated at least 100 degrees F above the operating temperature of the sprinkler heads, or manually with independent controls for the fire department pursuant to section 914.12.

15.20.540: SECTION 914.12 ADDED:

Section 914.12 of the California fire code is hereby added to read as follows:

914.12 Special Requirements For Group F, M, S-1 Or S-2 Distribution Warehouses Greater Than 50,000 Square Feet in Floor Area. Buildings classified primarily as group M, group S-1 or S-2, with no more than 10% of the building square footage occupied with accessory uses, in which the primary use is wholesale or retail sales of bulk products or packaged materials, or for the storage of commodities for distribution, shall be in accordance with this section.

914.12.1 Fire Command Center. A fire command center for fire department operations shall be provided. The location and accessibility of the fire control room shall be approved by the fire code official. The fire control room shall be separated from the remainder of the building by walls and ceilings not less than one-hour fire partitions. The room shall be a minimum of 200 square feet (19 m^2) in area, with a minimum dimension of 10 feet (3048 mm). The room shall contain the following as a minimum:

1. The fire alarm control unit and associated equipment.

2. Annunciator panel displaying status of sprinkler control valves and waterflow detectors.

3. Main controls and indicators for mechanical smoke exhaust systems.

4. Graphic with schematic indicating building floor plans, means of egress, fire protection systems, firefighting equipment and access.

5. Other firefighting equipment and system controls as required by the fire code official.

6. Emergency lighting powered by the standby electrical system.

914.12.2 Mechanical Smoke Exhaust. A mechanical smoke exhaust system conforming to the requirements of section 910.4 shall be provided. The system may be combined with environmental or other ventilation air systems when approved by the fire code official.

914.12.3 Standpipe Systems. A class I standpipe system shall be provided, with hose connections located at fire department access doors as required by section 905.4. The system may be interconnected with the building automatic sprinkler systems, and may be supplied by adjacent systems or by a separate riser. Standpipe systems shall conform to the requirements of NFPA 14.

914.12.4 Fire Department Graphic. A printed graphic with schematic diagrams of the building automatic sprinkler systems, fire alarm systems, means of egress, standpipe systems, smoke exhaust systems, access doors, and any other equipment as required by the fire code official shall be superimposed over a building floor plan or site plan and mounted on the wall in a highly visible location in the fire control room. The graphic shall be durable and waterproofed.

914.12.5 Standby Power. A standby power generator conforming to the California electrical code shall be provided on the premises, in a protected location. The generator shall have a rated capacity necessary to supply the load of all fire protection features listed below at the same time:

1. Emergency lighting and exit signs necessary for egress.

2. Lighting for the fire control room.

3. Signal and communication systems as applicable.

4. Electrically powered fire pumps required to maintain pressure.

5. Mechanical smoke exhaust systems as required by section 914.12.2.

In addition, a fuel supply sufficient for not less than two hours of operation shall be required on the premises. All electrically connected systems shall be transferred within 60 seconds after losing primary power.

914.12.6 Enhanced Communications. When required by the fire code official, enhanced communication equipment, such as bi-directional amplifiers, shall be provided in the building for dedicated use by the fire department. When such equipment is required to be installed, it shall be provided with a standby power supply.

914.12.7 Other Requirements. All fire protection systems shall comply with fire department standards regarding installation, signage and labeling, maintenance, and other requirements as specified by the fire code official.

15.20.550: EMERGENCY RESPONDER RADIO COVERAGE IN EXISTING BUILDINGS

Section 1103.2 of the California Fire Code is hereby amended to read as follows:

1103.2 Criteria 2: Within one (1) year of completion date. All plans and permits shall be submitted for review within six (6) months of completion date.

15.20.560: FIREWORKS:

Section 5608 of the California Fire Code is hereby added to read as follows:

"Fireworks" means any device containing chemical elements and chemical compounds capable of burning independently of the oxygen of the atmosphere and producing audible, visual, mechanical, or thermal effect which are useful as pyrotechnic devices or for entertainment. The term "Fireworks" includes, but is not limited to, devices designated by the manufacturer as Fireworks, firecrackers, torpedoes, skyrockets, roman candles, rockets, sparklers, chasers, fountains, smoke sparks, aerial bombs, and Fireworks kits. "Fireworks" includes both "dangerous Fireworks" and "safe and sane" Fireworks as defined in the California Health and Safety Code.

15.20.570 1: MINOR CHARGE:

"Minor charge" is a person under the age of eighteen (18) years for whom a responsible guardian has the legal care, custody or control.

15.20.580.2: PROPERTY:

"Property" shall mean any private property; including but not limited to, a residence, yard, or field, whether or not occupied as a dwelling, and whether owned, leased, rented or used with or without compensation.

15.20.590.3: RESPONSE COSTS:

"Response costs" means those reasonable and necessary costs directly incurred by City public safety or other personnel for a response to an unpermitted discharge or illegal storage of fireworks, and include the cost of providing law enforcement, firefighting, or other services arising from the unpermitted discharge or illegal storage, maintaining or handling of fireworks, including but not limited to:

A. Salaries and benefits of public safety or other personnel for the amount of time spent responding to, remaining at, or otherwise dealing with the unpermitted discharge or illegal storage of fireworks, and the administrative costs attributable to any response;

B. The cost of any medical treatment to or for any public safety personnel injured responding to, remaining at, or leaving the scene of the unpermitted discharge or illegal storage of fireworks;

C. The cost of repairing or replacing any public safety equipment or property damage, and the cost of use of any such equipment, in responding to, remaining at, or leaving the scene of any unpermitted discharge or illegal storage of fireworks; and

D. The disposal cost of confiscated fireworks.

15.20.600.4: RESPONSIBLE GUARDIAN:

"Responsible guardian" means a parent, guardian or other person having the legal care, custody, or control of his or her minor charge.

15.20.610.5: PROHIBITION:

Except as otherwise provided in this Code, no person shall have in his or her possession, or keep, store, use, shoot, discharge, set off, ignite, explode, manufacture, sell, offer to sell, give, transport, or improperly dispose of any fireworks or dangerous or safe and sane fireworks.

A. Except where otherwise expressly provided in this Code or under a permit issued by the California State Fire Marshal or the Fire Chief, it shall be unlawful for any person to possess, offer for sale, or store any fireworks.

B. Except where otherwise expressly provided in this Code, it shall be unlawful for any property owner or tenant to allow or permit the possession, sale, use or discharge of fireworks at or on their property when the property owner or tenant knows or should know of the possession, sale, use or discharge of fireworks at or on such property.

C. The Fire Chief and his or her authorized representatives shall have the authority to seize, take, and remove any fireworks, dangerous fireworks, and safe and sane fireworks. The Fire Chief and his authorized representatives may charge any person whose fireworks are seized pursuant to this section.

D. Every person who causes, aids, abets or conceals a violation of the California Fire Code is guilty of violating the California Fire Code. Each such person, corporation or firm shall be deemed guilty of a misdemeanor of a separate offense for each day or portion thereof during which any violation of any provision of the California Fire Code is committed, continued, permitted or maintained by such person, firm or corporation.

15.20.620.6: APPLICATION OF STATE LAW:

Nothing in this section 15.20.520 shall limit any of the penalties provided in the California Health and Safety Code or the California Penal Code with regard to the offer for sale, exposing for sale, sale at retail, use or discharge of any fireworks.

15.20.630.7: LIABILITY FOR RESPONSE COSTS:

A. Any person who violates this section 15.20.520 shall be liable for response costs incurred in responding to the unpermitted use, discharge or storage of fireworks.

B. If a person who violated this section 15.20.520 is a minor charge, the responsible guardian of the minor charge and the minor charge shall be jointly and severally liable for the response costs incurred pursuant to this section 15.20.520.

C. To incur liability for response costs imposed by this section 15.20.520, a person who violates this section 15.20.520 need not be present at the event that causes the response giving rise to the imposition of response costs.

D. Response costs imposed by this section 15.20.520 are in addition to any other costs that may be recovered under this Code or State law.

15.20.640: WILDLAND-URBAN INTERFACE FIRE AREA:

Section 4902.1 the definition of the Local Responsibility Area (LRA) is hereby added to read as follows:

Local Responsibility Area (LRA) is defined as lands within the geographical boundaries found in the map within the city of Redlands general plan figure 8.1.

15.20.650: VEGETATION MANAGEMENT

Section 4906.1.1 of the California fire code is hereby added to read as follows:

4906.1.1 Maintenance. Persons owning, leasing, controlling, operating or maintaining buildings or structures in, upon or adjoining hazardous fire areas, and persons owning, leasing or controlling land adjacent to such buildings or structures, shall at all times:

Maintain an effective fuel modification zone by removing, clearing, or modifying away combustible vegetation and other flammable materials from areas within 100 feet from such buildings or structures. (See exception 3 for fire-resistive construction and other features for approval and/or a reduction of the fuel modification zone.) The fuel modification zone may be replanted with either approved irrigated, fire-resistant planting material or approved non-irrigated, drought-tolerant, fire-resistant plant material. Use of plants, trees, and/or shrubs on the Redlands fire department wildland urban interface high fire severity area undesirable list, must be specifically approved by the fire code official. Use of any of the plantings on the list is subject to periodic, ongoing inspections by the fire department to ensure proper maintenance. Inspections may incur fees payable by the property owner. Failure to maintain the plants and trees on this list in accordance with plan approval could result in the plants, trees, and/or shrubs being ordered to be removed at the expense of the property owner. Replanting of the fuel modification zone may be required for erosion control.

Exceptions:

1. Single specimens of trees, ornamental shrubbery or similar plants used as ground covers, provided that they do not form a means of rapidly transmitting fire from the native growth to any structure.

2. Grass and other vegetation located more than 30 feet from buildings or structures and less than 18 inches (457 mm) in height above the ground need not be removed where necessary to stabilize the soil and prevent erosion.

3. With the approval of the fire code official, the width of the fuel modification zone may be reduced where fire-resistive structures or other features are constructed. However, in no case shall the fuel modification zone be reduced to less than 30 feet. See California building code chapter 7A and international wildland-urban interface code for the minimum requirements of a fire-resistive structure.

Remove portions of trees, which extend within 10 feet of the outlet of a chimney,

Maintain trees adjacent to or overhanging a building free of deadwood, and

Maintain the roof of a structure free of leaves, needles or other dead vegetative growth.

If the owner fails to correct such conditions, the fire code official is authorized to cause the same to be done and make the expense of such correction a lien upon the property where such condition exists.

15.20.660: DEFENSIBLE SPACE

Section 4907.4 of the California fire code is hereby added to read as follows:

4907.4 Defensible space zones. All existing habitable buildings and structures withing the Very High Fire Hazard Severity Zone (VHFHSZ) shall maintain defensible space in

accordance with sections 4907.4.1, 4907.4.2, and 4907.4.3. The fire code official may require additional fuel modification measures to be taken by the property owner when extreme hazardous vegetation conditions are present.

4907.4.1 Zone Zero (0-5 feet) – Ember Resistant. Zone zero zones shall be maintained in accordance with sections 4907.4.1.1 through 4907.4.1.8.

4907.4.1.1 Vegetation. Vegetation shall be in accordance with the following:

1. Ornamental and native shrubs shall be thinned, relocated, or removed to provide no more than fifty (50) percent density and/or coverage and shall be positioned to limit plan continuity and inhibit fire progression.
2. Remove all dead, dying, or diseased vegetation, including where applicable on portions of live vegetation and dead, dying, or diseased grass, plants, shrubs, branches, leaves, and weeds.
3. Maintain grasses to a maximum height of four (4) inches.
4. Maintain large shrubs and hedges exceeding six (6) feet in height such that limbs are not within 4 feet of the ground or one-third of its height, whichever is less.
5. Vines are to be limited on the structure.
6. Vegetation under windows shall be kept to below eighteen (18) inches.
7. Consideration shall be given to properties with more fire-resistive construction, lower flammability plant species, and frequent irrigation.

4907.4.1.2 Tree Maintenance. Tree maintenance shall be in accordance with the following:

1. Trees shall be maintained (i.e., cleaned, thinned, raised) to reduce the spread of fire.
2. Tree branches shall have six (6) feet of clearance above roofs, combustible fences, combustible structures, and the ground. Additional clearance equal to three (3) times the height of the shrub is needed if shrubs are located under tree branches.
3. Dead, dying, or diseased trees shall be removed. An evaluation by a licensed arborist with recommendations on removal of dying or diseased trees may be required by the fire code official.

4907.4.1.3 Balconies, Overhangs, and Porches. The underside of balconies, overhangs, and porches shall be kept clear of combustible vegetation.

4907.4.1.4 Organic Wood Chips and Mulch. Organic mulch and wood chip application is prohibited. Non-combustible materials such as concrete, gravel, decomposed granite, or other approved materials shall be used within this zone.

4907.4.1.5 Firewood. Firewood shall not be stored within this zone.

4907.4.1.6 Chimneys. All chimneys shall have a spark arrestor and all branches shall be a minimum of ten (10) feet from chimneys, stovepipe outlet, and heater outlets.

4907.4.1.7 Propane Tanks. Dead, dying, or diseased vegetation shall be removed from within ten (10) feet of propane tanks.

4907.4.1.8 Roofs and Gutters. Maintain the roof and gutters to be free of leaves, needles, or other vegetation.

4907.4.1.9 Firefighter Access. Remove hazardous items that would hinder existing firefighter access to all sides of the structure.

4907.4.2 Zone One (5-30 feet) – Lean, Clean, and Green Zone. Zone one zones shall be maintained in accordance with sections 4907.4.2.1 through 4907.4.2.5.

4907.4.2.1 Vegetation. Vegetation shall be in accordance with the following:

1. Ornamental and native shrubs shall be thinned, relocated, or removed to provide no more than fifty (50) percent density and/or coverage and shall be positioned to limit plan continuity and inhibit fire progression.
2. Remove all dead, dying, or diseased vegetation, including where applicable on portions of live vegetation and dead, dying, or diseased grass, plants, shrubs, branches, leaves, and weeds.
3. Maintain grasses to a maximum height of four (4) inches.
4. Maintain large shrubs and hedges exceeding six (6) feet in height such that limbs are not within 4 feet of the ground or one-third of its height, whichever is less.
5. Consideration shall be given to properties with more fire-resistive construction, lower flammability plant species, and frequent irrigation.

4907.4.2.2 Tree Maintenance. Tree maintenance shall be in accordance with the following:

1. Trees shall be maintained (i.e., cleaned, thinned, raised) to reduce the spread of fire.
2. Tree branches shall have six (6) feet of clearance above roofs, combustible fences, combustible structures, and the ground. Additional clearance equal to three (3) times the height of the shrub is needed if shrubs are located under tree branches.
3. Dead, dying, or diseased trees shall be removed. An evaluation by a licensed arborist with recommendations on removal of dying or diseased trees may be required by the fire code official.

4907.4.2.3 Organic Wood Chips and Mulch. Organic mulch and wood chips shall be kept at a depth of three (3) inches.

4907.4.2.4 Propane Tanks. Dead, dying, or diseased vegetation shall be removed from within ten (10) feet of propane tanks.

4907.4.2.5 Firefighter Access. Remove hazardous items that would hinder existing firefighter access to all sides of the structure.

4907.4.3 Zone Two (30-100 feet) – Fuel Reduction Zone. Zone one zones shall be maintained in accordance with sections 4907.4.3.1 through 4907.4.3.5.

4907.4.3.1 Vegetation. Vegetation shall be in accordance with the following:

1. Ornamental and native shrubs shall be thinned, relocated, or removed to provide no more than sixty (60) percent density and/or coverage and shall be positioned to limit plan continuity and inhibit fire progression.
2. Remove all dead, dying, or diseased vegetation, including where applicable on portions of live vegetation and dead, dying, or diseased grass, plants, shrubs, branches, leaves, and weeds.
3. Maintain grasses to a maximum height of eighteen (18) inches.
4. Maintain large shrubs and hedges exceeding six (6) feet in height such that limbs are not within four (4) feet of the ground or one-third of its height, whichever is less.
5. Consideration shall be given to properties with more fire-resistive construction, lower flammability plant species, and frequent irrigation.

4907.4.3.2 Tree Maintenance. Tree maintenance shall be in accordance with the following:

1. Trees shall be maintained (i.e., cleaned, thinned, raised) to reduce the spread of fire.
2. Tree branches shall have six (6) feet of clearance above roofs, combustible fences, combustible structures, and the ground. Additional clearance equal to three (3) times the height of the shrub is needed if shrubs are located under tree branches.
3. Dead, dying, or diseased trees shall be removed. An evaluation by a licensed arborist with recommendations on removal of dying or diseased trees may be required by the fire code official.
4. All exposed wood piles shall have a minimum of ten (10) feet of clearance down to bare mineral soil in all direction.

4907.4.3.3 Organic Wood Chips and Mulch. Organic mulch and wood chips shall be kept at a depth of three (3) inches.

4907.4.3.4 Propane Tanks. Dead, dying, or diseased vegetation shall be removed from within ten (10) feet of propane tanks.

4907.4.3.5 Firefighter Access. Remove hazardous items that would hinder existing firefighter access to all sides of the structure.

15.20.670: FIRE PROTECTION PLAN:

Section 4903 of the California fire code is hereby amended to read as follows:

Section 4903 Fire Protection Plan

4903.1 General. A fire protection plan (FPP), approved by the fire code official, shall be required for all new development within the wildland-urban interface area.

The FPP shall include mitigation measures consistent with the unique problems resulting from the location, topography, geology, flammable vegetation, and climate of the proposed site.

The FPP shall address water supply, access, building ignition and fire resistance, fire protection systems and equipment, defensible space and vegetation management.

The FPP shall be consistent with the requirements of California building code chapter 7A, and the international wildland-urban interface code, and the Redlands municipal code.

15.20.680: APPENDIX B:

Section B105.2 of appendix B of the California fire code is hereby amended by amending the exception to read as follows:

Exception: A reduction in required fire-flow of up to 50 percent (50%), as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than 1,500 gallons per minute (5678 l/min) for the prescribed duration as specified in table B105.1(2).

15.20.690: APPENDIX BB:

Section BB105.1 of appendix BB of the California fire code is hereby amended by amending the exception to read as follows:

Exception: A reduction in required fire-flow of up to 50 percent (50%), is allowed when the building is provided with an approved automatic sprinkler system. When a reduction in fire flow is used, fire flow shall not be less than 1500 gpm.

15.20.700: APPENDIX C:

Appendix C is hereby adopted in its entirety without amendments or deletions.

15.20.710: APPENDIX CC:

Appendix CC is hereby adopted in its entirety without amendments or deletions.

15.20.720: APPENDIX D:

Appendix D is hereby adopted in its entirety with the following additions and amendments:

Section D101.2 of appendix D of the California fire code is hereby added to read as follows:

D101.2 Construction Documents. Construction documents for proposed fire apparatus access location of fire lanes, security gates across fire apparatus access and construction documents and hydraulic calculations for fire hydrant systems shall be submitted to the fire department for review and approval prior to construction.

Section D101.3 of appendix D of the California fire code is hereby added to read as follows:

D101.3 Timing of Installation. When fire apparatus access roads or a water supply for fire protection is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when approved alternative methods of protection are provided. Temporary street signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles.

Section D102.1 of appendix D of the California fire code is hereby amended to read as follows:

D102.1 Access and Loading. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building thereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet of all portions of the facility and all portions of the exterior wall for the first story of the building as measured by an approved route around the exterior of the building or facility.

Section D103.3 of appendix D of the California fire code is hereby amended to read as follows:

D103.3 Turning Radius. 503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be an inner radius of nineteen (20) feet and outer radius of forty (40) feet.

Section D103.4 of appendix D of the California fire code is hereby amended to read as follows:

D103.4 Dead Ends. Dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved area for turning around fire apparatus.

Section D103.7 of appendix D of the California fire code is hereby added to read as follows:

D103.7 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus weighing at least 75,000 pounds. The roadway shall be surfaced so as to provide all weather driving capabilities.

Section D103.8 of appendix D of the California fire code is hereby added to read as follows:

D103.8 Authority. The fire code official shall have the authority to require an increase in the minimum access width where they are inadequate for fire or rescue operations.

Section D103.9 of appendix D of the California fire code is hereby added to read as follows:

D103.9 Bygone Roadways. Where fire department access is unduly difficult utilizing bygone roadways, and where modifications would significantly impact the historical significance of the area, the fire chief may authorize alternative means and methods in order to maintain fire department access. Methods may include but are not limited to the posting of signs and notices of parking requirements in order to maintain access.

15.20.730: APPENDIX O

Section O101.2 of the California fire code is hereby amended to read as follows:

O101.2 Permits. An operational permit shall be required for haunted houses, ghost walks or similar uses in accordance with Appendix O101.2. Permit applications and documents shall be submitted within three (3) weeks of occupancy date. Additional permits shall be obtained from local building department as required for any structural, electrical, or other modifications.

Section O103.2 of the California fire code is hereby amended to read as follows:

O103.2 Tents or membrane structures. Tents and membrane structures may be used when in compliance with all applicable requirements of this regulation, chapter 31 of this code, and when the total floor area of the tent is less than 1,000 square feet and the travel distance to an exit from any location is less than fifty (50) feet.

Section O103.7 of the California fire code is hereby amended to read as follows

O103.7 Exception 2: Existing unsprinklered assembly spaces, such as gymnasiums, when used for assembly purposes such as grad night.

Section O103.7.1.1 of the California fire code is hereby amended to read as follows:

O103.7.1.1 Obstructions. Fire sprinkler systems and piping, when provided, shall not be obstructed, altered, or used to support any decorations.

Section O103.7.2.1 of the California fire code is hereby amended to read as follows:

O103.7.2.1 Obstructions. Automatic smoke detection systems or devices, when present, shall not be obstructed, altered, or turned off.

Section O103.7.4 of the California fire code is hereby added to read as follows:

> O103.7.4 Add Exception. When the total floor area of the tent is less than 1,000 square feet and the travel distance to an exit from any location is less than fifty (50) feet, manually activated devices suitable for sounding an alarm or another approved method of alerting staff shall be provided as approved by the fire code official.

Section O103.9.1 of the California fire code is hereby amended to read as follows:

> O103.9.1 Flame retardant. All decorative materials shall be both inherently flame retardant, labeled as such, or be treated with a listed flame-retardant material registered with the California State Fire Marshal. If the material is treated by the user, a container and receipt will serve as proof.

Section O103.12 of the California fire code is hereby amended to read as follows:

> O103.12 Inspections. A fire and life safety inspection shall be conducted by the fire department prior to the start of the event. Final building department inspection and sign-off shall be made in conjunction with the fire department.

15.20.740: VIOLATION; PENALTY:

A. It is unlawful to violate or fail to comply with any of the provisions of the California fire code, or to fail to comply with any order made pursuant thereto. It is also unlawful to build in violation of any detailed statement of plans or specifications submitted and approved under the California fire code, or any certificate or permit issued thereunder, and from which no appeal has been taken.

B. Except as otherwise specified in this chapter, all violations of the California fire code or its appendices, or the amendments thereto contained in this chapter, are misdemeanors and are punishable as provided in title 1, chapter 1.20 of this code.

C. Every person who causes, aids, abets or conceals a violation of the California fire code is guilty of violating the California fire code. Each such person, corporation or firm shall be deemed guilty of a separate offense for each day or portion thereof during which any violation of any provisions of the California fire code is committed, continued, permitted or maintained by such person, firm or corporation."

Section 2. If any subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction or preempted by State or Federal legislation, such decision or legislation shall not affect the validity of the remaining portions of this Ordinance. The City Council declares that it would have passed this Ordinance and each and every subsection, sentence, clause or phrase not declared invalid or unconstitutional without regard to any such decision or preemptive legislation.

Section 3. The provisions of this Ordinance shall be in force on and after the date upon which this Ordinance becomes effective; provided, however, that where complete plans for buildings have been filed and are pending for building permits prior to the effective date of this Ordinance, permits may be issued in compliance with the governing laws at the time of review and approval of such plans, and the applicant may proceed with construction, provided physical construction is commenced within one hundred eighty (180) days from the date of issuance of the permit and continued to completion.

Section 4. Unless superseded and expressly repealed, references in City forms, documents and regulations to Chapter 15.20 of the Redlands Municipal Code and to the former edition of the California Fire Code shall be construed to apply to the corresponding provisions of Chapter 15.20 of the Redlands Municipal Code and the 2022 edition of the California Fire Code as adopted and established by this Ordinance.

Section 5. The City Council hereby determines that the adoption of this Ordinance is exempt from review under the California Environmental Quality Act ("CEQA") pursuant to State CEQA Guidelines Section 15061(b)(3) for the reason that it can be seen with certainty there is no possibility that the adoption of this Ordinance will have a significant effect on the environment.

Section 6. The City Clerk is hereby directed to publish notice in a newspaper of general circulation within the City, in accordance with Government Code section 6066, of the scheduling of a public hearing to consider adoption of this Ordinance on December 6, 2022. The notice shall state the time and place of the hearing, and shall also state that copies of the California Fire Code, 2022 edition, and the proposed amendments thereto, are on file with the office of the City Clerk and open to public inspection. The notice shall also contain a description which the City Council deems sufficient to serve notice to the interested persons of the purpose of this Ordinance and the subject matter hereof. The City Council further delegates the determination of such sufficiency to the City Manager.

Section 7. The Mayor shall sign this Ordinance and the City Clerk shall certify to the adoption of this Ordinance and shall cause it, or a summary of it, to be published once in a newspaper of general circulation within the City, and thereafter, this Ordinance shall take effect as provided by law.

_____

Paul T. Barich Mayor

ATTEST:

_____

Jeanne Donaldson, City Clerk

I, Jeanne Donaldson, City Clerk, City of Redlands, hereby certify that the foregoing Ordinance was duly adopted by the City Council at the regular meeting thereof, held on the _____ day of _____, 2022, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Jeanne Donaldson, City Clerk

City Council Meeting **L. 5.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Consideration of a software as a service agreement, a service level agreement, a pricing agreement and related professional services for the electronic plan review software ProjectDox with Avolve Software Corporation for the amount not-to-exceed $592,362.50 (Development Services Department Director Desatnik)

MOTION(S):

If the City Council determines that staff's recommendation is appropriate, the following motion is provided:

I move to approve the Software as a Service Agreement (SAAS), Service Level Support Agreement (SLA), Pricing Agreement and related professional services for the electronic plan review software ProjectDox (Avolve SAAS Solution) with Avolve Software Corporation (Avolve) for the amount not-to-exceed $592,362.50.

RECOMMENDATION:

Staff recommends that the City Council approve the SAAS Agreement, SLA Agreement, Pricing Agreement and related professional services for the Avolve SAAS Solution with Avolve for the amount not-to-exceed $592,362.50.

DISCUSSION:

The Development Services Department (Department) performs building plan reviews to verify all proposed construction meets the safety and sustainability requirements of the Redlands Municipal code, California Building Codes and other appropriate State and Federal laws.

As part of its plan review services, the Department would like to provide residents, design professionals, and developers the ability to have their projects

submitted, reviewed, and approved electronically. Electronic plan review offers customers a fast, simple and cost-effective way to participate in the City's permitting process. This provides greater efficiency and cost-savings for applicants by accepting plans electronically, streamlining processes, and creating a digital one-stop review for projects. As the system is accessible to applicants, consultants and other external public agencies, ProjectDox seamlessly integrates the development review process and will eliminate a significant amount of travel necessary for applicants when seeking plan approval from other public agencies.

Avolve is the developer of ProjectDox, an electronic permit plan check and review software that helps manage the development and construction review process. In addition to reviewing plans, ProjectDox also serves as a digital repository for approved plans to be maintained and used by City staff in the future.

Customers currently submit 100% of plan submittals in person. With the Covid-19 closure, it allowed for the City to examine the need to move towards an electronic plan review platform that integrates with the City's current permitting platform, Cityworks. This will allow the Department and customers to transition from paper plans to 100% electronic submittals. Customers will be able to proceed through the plan review process without delays and minimize travel to and from City Hall. This process also enhances the City's environmentally friendly "green" efforts and compliments ongoing efforts to reduce plan review turnaround times while maintaining a high level of customer service.

In 2021, the Department issued a request for proposal (RFP) to provide an electronic plan review software solution according to Purchasing guidelines. The Department received five responsive bids. An evaluation committee comprised of staff from Development Services, Fire and IT reviewed and ranked the proposals as well as interviewing the top two selections. Avolve was selected as the highest ranked firm based on their extensive specialization in electronic plan review software and the ability for the software to integrate with the City's existing Citiworks permitting program.

With approval of the agreements, the Department will receive the latest ProjectDox software Version 9.2, and related professional services as part of the Avolve SAAS Solution. The implementation and integration process is estimated to take twelve weeks.

ALTERNATIVES:

The City Council may elect not to approve these agreements and direct staff to take different action. However, not approving these actions would delay the implementation of an electronic plan review software solution which is a strategic plan priority for the City.

STRATEGIC PLAN:

Support Strategic Plan Priority A - Quality of Life, Strategic Objective 2. Economic Viability -Implement electronic plan review and permitting process.

SUBMITTED BY:
Brian Desatnik, Development Services Director

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager
Danielle Garcia, Management Services/Finance Director

PREPARED BY:
Tricia Munoz, Management Analyst/Development Services

Fiscal Impact

Fiscal Year:	2022-23
Revenue Generating:	No
Appropriation Required Y/N:	No
Amount:	$154,622.50
Budgeted Y/N:	Yes
Account No.:	101162-6703
Discussion:	

The Department will pay $154,622.50 for the scope of services included in the SAAS agreement during the initial term of one year, which covers both the implementation of ProjectDox and integration with the Citiworks permitting system as well as the annual subscription services.

The SAAS agreement includes the option of four one-year additional extension terms in the amount of $97,160 for the second term, $127,760 for the third term if additional implementation of workflows is requested, $95,160 in the fourth term and $119,660 in the fifth term if additional implementation of workflows are requested bringing the total compensation amount not-to-exceed $592,362.

The cost to perform these activities is included in the fiscal year 2022-23 City Council-approved budget for the Development Services Department Building & Safety Division budget (101162-6703). Subsequent years' costs will be included with the division's corresponding budget requests.

Attachments

Avolve SAAS Agreement

AVOLVE SOFTWARE CORPORATION
Software as a Services Agreement

This agreement ("Agreement") is made this on the 15th day of November 2022, ("Effective Date") by and between Avolve Software Corporation, a Delaware corporation with offices at 4835 E. Cactus Road, Suite 420, Scottsdale, Arizona 85254, United States of America, ("Avolve" or "Services Provider") and the City of Redlands, a municipal corporation and general law city ("Customer").

WHEREAS Avolve offers remotely hosted subscription, software-as-a-service access (on hardware owned or operated on behalf of Avolve by a third party hosting service provider such as Microsoft Corporation) to Avolve's software (collectively, such hosted electronic plan review and project information management, collaboration and review system, including all software applications, application program interfaces, modules, databases, hardware, infrastructure, documentation and system administration, management and monitoring activities that Avolve provides for the software shall be referred to herein as the "Avolve SAAS Solution");

WHEREAS Avolve provides professional services ("Professional Services") to assist customers with among other things, implementation of the Avolve SAAS Solution and training;

WHEREAS the Customer desires to purchase use rights for the Avolve SAAS Solution and related Professional Services (the "Initial Purchase") from Avolve and, pay for such purchases either directly or pursuant to an agreement between the Customer and a third-party financing source reasonably acceptable to Avolve (the "Financing Company"); and

WHEREAS Avolve and Customer now desire to provide the terms and conditions under which Avolve will provide the Initial Purchase to Customer, as well provide the terms and conditions for the Customer to purchase other Professional Services from Avolve, with or without the assistance of Financing Company or another paying agent;

NOW THEREFORE, in consideration of the foregoing and of the mutual covenants and promises set forth herein, Avolve and Customer agree as follows.

SECTION A. – AVOLVE SAAS SOLUTION

1. Avolve SAAS Solution.

   a. Use Rights. Subject to Customer's compliance with all the terms and conditions of this Agreement, Avolve grants to Customer a non-exclusive, non-transferable, non-sublicensable right during the subscription term ("Subscription Term") identified in the Implementation SOW (attached hereto as Exhibit 1 to permit Users to use the Avolve SAAS Solution identified in the Implementation SOW for Customer's internal business operations, solely for the specific Business Unit(s) as further set forth in the Implementation SOW. Should Customer desire to reorganize any such Business Unit, it shall provide Avolve written notice as soon as possible following the determination of reorganization, so that Avolve may

review the planned reorganization to determine if it is consistent with the Business Unit limitation in this use rights grant and, if not, what additional fees will be required due to Customer's reorganization to include additional Business Units. As used in this Agreement, "User" means authorized Customer employees and third parties that require access to the Avolve SAAS Solution in connection with the Customer's internal business operations, such as the Customer's employees, administrators, contractors, reviewers, and applicants. There may be different types/levels of Users for the Avolve SAAS Solution, such as administrator Users, if so identified in the Implementation SOW.

b. Storage. The Avolve SAAS Solution will include for the initial Subscription Term the amount of storage set forth in the Implementation SOW. Customer acknowledges that should Customer exceed the included storage limits after Avolve has sent notice to Customer in accordance with Avolve's then-current standard storage limits and data backup practices (available upon request), additional charges will be incurred by Customer. Avolve shall invoice Customer for any such additional incurred charges, and Customer shall pay such invoices, in accordance with Section C of this Agreement. Avolve may, in its sole discretion, modify the amount of standard storage included at no additional charge with the Avolve SAAS Solution, with such modification to become effective upon the effective date of any renewal term provided that Avolve provides Customer written notice of such modification at least ninety days in advance of the expiration of the then-current Subscription Term.

c. Restrictions on Use. Customer will not, and will ensure that its Users do not: (i) except as expressly stated herein, copy, reproduce, distribute, republish, download, display, host or transmit in any form or by any means, including but not limited to electronic, mechanical, photocopying, recording, or other means, any part of Avolve SAAS Solution or any other Avolve materials; (ii) use the Avolve SAAS Solution or any other Avolve materials to provide services to third parties (e.g., business process outsourcing, service bureau applications or third party training); (ii) assign, sublicense, sell, lease, loan, resell, sublicense or otherwise distribute or transfer or convey the Avolve SAAS Solution or any other Avolve materials, or pledge as security or otherwise encumber Customer's rights under this Agreement; (iii) make any use of or perform any acts with respect to the Avolve SAAS Solution or any other Avolve materials other than as expressly permitted in accordance with the terms of this Agreement; or (iv) use the Avolve SAAS Solution components other than those specifically identified in the Implementation SOW and then only as part of Avolve SAAS Solution as a whole, even if it is also technically possible for Customer to access other Avolve SAAS Solution components; or (v) modify, further develop or create any derivative works of, disassemble, decompile, reverse engineer or otherwise attempt to obtain or perceive the source code from which any part of Avolve SAAS Solution is compiled or interpreted, or access or use Avolve SAAS Solution in order to build

a similar or competitive product or service; (vi) allow use of the Avolve SAAS Solution or any other Avolve materials by anyone other than authorized Users; (vii) publish any results of benchmark tests run on Avolve SAAS Solution; (viii) unless otherwise expressly authorized in writing by Avolve, use the Avolve SAAS Solution in connection with any software product or tools, or any other software as a service not provided by Avolve; and (ix) input, upload, transmit or otherwise provide to or through Avolve SAAS Solution or any systems used by Avolve anything that is unlawful, injurious, or contains, transmits or activates any harmful code. Customer acknowledges that nothing herein will be construed to grant Customer any right to obtain or use the source code from which Avolve SAAS Solution is delivered. Customer shall not tamper with or attempt to disable any security device or protection used by Avolve SAAS Solution or any other Avolve materials, nor shall Customer damage, destroy, disrupt or otherwise impede or harm in any manner the Avolve SAAS Solution or any systems used by Avolve. Customer agrees to take all commercially reasonable steps to ensure that Users abide by the terms of this Agreement and expressly agrees to indemnify Avolve, its officers, employees, agents and subcontractors from and against all claims, liabilities, losses, damages and costs (including reasonable attorney fees) suffered by Avolve arising from a breach by the User of the conditions of this Agreement.

d. High-Risk Activities. The Avolve SAAS Solution is not fault-tolerant and is not designed, manufactured, or intended for use or resale as online control equipment in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines or weapons systems, in which the failure of the Avolve SAAS Solution or derived binaries could lead directly to death, personal injury, or severe physical or environmental damage. The Avolve SAAS Solution is also not designed or intended for use with Federal Tax Information (FTI) as defined in the Internal Revenue Service Publication 1075 (IRS 1075) or criminal justice information ("CJI"), such as fingerprint records and criminal histories. Customer shall not use the Avolve SAAS Solution for any of these high-risk activities, including without limitation transmitting, storing or otherwise processing any FTI or CJI with the Avolve SAAS Solution.

e. Project Administrator. Customer agrees, if not already designed in the Implementation SOW, to promptly designate in writing one person to be the Customer's point person responsible for all communications with Avolve (the Customer's "Project Administrator"). The Project Administrator is responsible for project administration duties as documented in the Avolve systems guides, statements of work, and documentation (collectively, the "Documentation"), as provided for time to time by Evolve to Customer.

f. Customer Connection. During the Term, the Customer is responsible for obtaining and maintaining connection to the Avolve SAAS Solution, including the Internet connection. Avolve shall not be responsible for any inadequacy or lack of

functionality of Customer's connection to the Avolve SAAS Solution or the inability of the Customer's computer, telecommunications provider, or other equipment and capabilities to access or use the Avolve SAAS Solution.

g. Third Party Service Providers and Components. Notwithstanding anything to the contrary in this Agreement or any other documents between Avolve and Customer, Customer acknowledges and agrees as follows.

1. The Avolve SAAS Solution and its component parts are protected by copyright and other propriety rights of Avolve and one or more third party software vendors (including Oracle and Open Text Corporation ("OTC") (all such third-party vendors, including without limitation Oracle and OTC, shall be referred to herein as "third party vendors" or "third party software vendors"). Customer may be held directly responsible by such third-party vendors for acts relating to the Avolve SAAS Solution component parts that are not authorized by this Agreement. Customer's use of such third-party software is limited to only in conjunction with Avolve SAAS Solution and Customer acknowledges that it is not allowed to modify such third-party software or use it independent from Avolve SAAS Solution.

2. If Customer purchases from Avolve hosting of the Avolve SAAS Solution on the Microsoft® Windows Azure™ platform, the terms and conditions for such cloud services as such may be updated by Microsoft Corporation from time to time, are found online on at https://www.microsoft.com/licensing/docs/customeragreement. Customer should review the documents available on this website carefully to be sure that Customer reviews the appropriate customer agreement. If Customer has purchased Microsoft Cloud for US Government, review the customer agreement for Microsoft Cloud for US Government. If Customer is purchasing commercial access, the customer agreement for commercial access for the United States applies. Upon Customer's request, Avolve will provide Customer with assistance on finding and/or a copy of the appropriate Microsoft customer agreement. Customer acknowledges and agrees THAT (A) THE HOSTED SERVICES WILL BE PERFORMED SOLELY AND EXCLUSIVELY SUBJECT TO THE APPLICABLE MICROSOFT CORPORATION'S CUSTOMER AGREEMENT (the "Microsoft Customer Agreement) , (B) THAT AVOLVE DOES NOT GUARANTY MICROSOFT CORPORATION'S OBLIGATIONS PURSUANT TO THE MICROSOFT CUSTOMER AGREEMENT, AND (C) NOR CAN AVOLVE GRANT ANY WARRANTIES OR ADDITIONAL TERMS TO THE CUSTOMER AS TO THE HOSTED SERVICES UNDER THIS AGREEMENT. THE HOSTED SERVICES ARE

SOLELY GOVERNED BY THE MICROSOFT CUSTOMER AGREEMENT, TO WHICH AVOVLE IS NOT A PARTY. Microsoft Corporation makes certain service level commitments to its customers, which are available online in the Microsoft Corporation's SLAs at https://azure.microsoft.com/en-us/support/legal/sla/summary/. If Customer desires to make a claim under the Microsoft Corporation SLAs, Customer shall submit the claim through Avolve. Avolve will escalate the claim to Microsoft Corporation for review. If Microsoft Corporation determines that a credit is due, Avolve will credit Customer the amount Microsoft Corporation has paid to Avolve for the SLA credit promptly after receiving the credit from Microsoft Corporation.

h. Compatibility Updates. Avolve will make commercially reasonable efforts to update the Avolve SAAS Solution, if and as required, to cause it to operate under new versions or releases of current operating systems and internet browsers, within fifteen (15) months of general availability.

i. Passwords, Access. Customer may designate and add Users and shall provide and assign unique passwords and usernames to each authorized User pursuant to Avolve's then-current protocols. At Avolve's discretion, Users may be added either by Avolve or directly by Customer. Customer shall ensure that multiple Users do not share a password or username. Customer further acknowledges and agrees that it is prohibited from sharing passwords and/or usernames with unauthorized users. Customer will be responsible for the confidentiality and use of its Users passwords and user names. Avolve will act as though any electronic communications it receives under such passwords, usernames, and/or account numbers have been sent by Customer. Customer agrees to immediately notify Avolve if it becomes aware of any loss or theft or unauthorized use of any of passwords, usernames, and/or account numbers. Customer agrees not to access Avolve Cloud by any means other than through the interfaces that are provided by Avolve.

j. Transmission Of Data. Customer understands that the technical processing and transmission of Customer Data is necessary to use of the Avolve SAAS Solution, and consent to Avolve's interception and storage of Customer Data. Customer understands that its Users or Avolve may be transmitting Customer Data over the Internet, and over various networks, only part of which may be owned by Avolve. Avolve is not responsible for any portions of Customer Data that are lost, altered, intercepted or stored without authorization during the transmission of Customer Data across networks not owned by Avolve.

k. Customer Responsibilities. Customer will (a) be responsible for Users' compliance with this Agreement, (b) be responsible for the accuracy, quality and legality of Customer Data and the means by which it acquired Customer Data, (c) be

responsible for cooperating and assisting Avolve as reasonably requested by Avolve to facilitate performance of its obligations and exercising of its rights under this Agreement, (d) use the Avolve SAAS Solution and any other materials provided by Avolve only in accordance with the Documentation and applicable laws and government regulations, including complying with all applicable legal requirements regarding privacy and data protection so as to not violate the intellectual property, privacy or any other rights of any third parties, and (e) use commercially reasonable efforts to prevent any security breach, including any unauthorized access to or use of the Avolve SAAS Solution. Should Customer become aware of any actual or threated security breach, Customer shall promptly notify Avolve and take all reasonable and lawful measures within its control that are necessary to stop the activity or threatened activity and to mitigate its effects (including, where applicable, by discontinuing and preventing any unauthorized access to the Avolve SAAS Solution). Customer shall provide sufficient notice to, and obtain sufficient consent from, its Users and any other party providing personal data to Avolve and its suppliers (including the Microsoft Corporation) to permit the processing of data by Avolve and its supplier, and their respective affiliates, subsidiaries, and service providers solely to the extent such processing of data is expressly allowed for under this Agreement, including for the purpose of disclosing it to law enforcement or other governmental authorities as directed by Avolve solely to the extent Avolve is required to do so by law, or otherwise mutually agreed to in writing by the parties.

l. Data Backup. The Avolve SAAS Solution is programmed to perform data backups of Customer Data stored within the Avolve SAAS Solution in accordance with Avolve's then-current standard storage limits and data backup practices (available upon request). Additional data backups may be purchased for an additional fee from Avolve and such additional data backup services shall be documented in an SOW pursuant to Section B of this Agreement. In the event of any loss, destruction, damage or corruption of Customer Data caused by Avolve or the Avolve SAAS Solution, Avolve, as its sole obligation and liability and as Customer's sole remedy, will use commercially reasonable efforts to restore Customer Data from Avolve's most current backup of Customer Data.

m. Ownership. Customer acknowledges and agrees that Avolve owns all right, title, and interest in and to all intellectual property rights (including all derivatives or improvements thereof) in the Avolve SAAS Solution and any suggestions, enhancements requests, feedback, recommendations or other information provided by Customer or any of its Users related to the Avolve SAAS Solution. Customer's use rights to the Avolve SAAS Solution and the related materials supplied by Avolve pursuant to this Agreement are strictly limited to the right to use the proprietary rights in accordance with the terms of this Agreement. No right of ownership, expressed or implied, is granted under this Agreement.

2. Security. The security, privacy and data protection commitments set forth in this Agreement only apply to products and services provided by Avolve directly to Customer and do not include any products or services resold by Avolve hereunder, including any hosting services provided by Microsoft Corporation pursuant to the Customer's Microsoft Customer Agreement.

a. Security Program. Avolve has implemented and maintains an information security program that incorporates administrative, technical, and physical safeguards designed to protect the security, confidentiality, and integrity of the Customer Data provided by Customer and its Users to Avolve in accordance with this Agreement.

b. Annual Audit. Avolve will use commercially reasonable efforts to conduct an annual security audit of Avolve using an independent third party selected by Avolve. Upon the Customer's written request, a copy of the final report from any such audit shall be promptly provided the Customer. The Customer agrees that any such reports or other information provided to Customer concerning any audit shall be the Confidential Information of Avolve.

c. Security Breach. Avolve will notify Customer promptly and in no event later than one (1) business day following Avolve's discovery of a Data Security Breach (defined below) and shall (i) undertake a reasonable investigation of the reasons for and the circumstances surrounding such Data Security Breach and (ii) reasonably cooperate with Customer in connection with such investigation, including by providing Customer with an initial summary of the results of Avolve's investigation as soon as possible, but in all cases within two (2) business days after the date Avolve discovered or reasonably suspected a Data Security Breach, and then regular updates on the investigation as it progresses; (iii) not make any public announcements relating to such Data Security Breach without Customer's prior written approval, which shall not be unreasonably withheld; (iv) use commercially reasonable efforts to take all necessary and appropriate corrective action reasonably possible on Avolve's part designed to prevent a recurrence of such Data Security Breach; (v) collect and preserve evidence concerning the discovery, cause, vulnerability, remedial actions and impact related to such Data Security Breach, which shall meet reasonable expectations of forensic admissibility; and (vi) if requested by Customer, at Customer's cost, provide notice to individuals or entities whose Confidential Information was or may have been affected in a manner and format specified by Customer. In the event of any Data Security Breach is caused by Avolve, Customer shall have, in addition to all other rights and remedies available under this Agreement, law and equity, the right to terminate the Agreement upon thirty (30) days prior written notice. For purposes of this Agreement, the term "Data Security Breach" shall mean any of the following occurring in connection with Customer Data in connection with Customer's and its Users' authorized use of the Avolve SAAS Solution: (a) the loss or misuse of Customer Data; and (b) disclosure to, or acquisition, access or use by, any person

not authorized to receive Customer Data, other than in circumstances in which the disclosure, acquisition, access or use is made in good faith and within the course and scope of the employment with Avolve or other professional relationship with Avolve and does not result in any further unauthorized disclosure, acquisition, access or use of Customer Data.

d. Signatures. The parties shall use electronic signatures for all agreements unless otherwise prohibited by law. Prior to any public disclosure of any document containing a signature, the signature shall be redacted by the disclosing party in a manner which renders it illegible and unable to be copied.

3. Suspension Right. Avolve reserves the right to include disabling devices in the service and software provided under this Agreement and to use such disabling devices to suspend access and/or use when any payment is more than 60 days overdue or when Avolve believes that Users are using the Avolve SAAS Solution and/or any other materials or services provided by Avolve hereunder not in accordance with the Documentation, this Agreement and/or applicable laws and government regulations. In addition, if Customer is using Microsoft Corporation for hosting services, Microsoft Corporation may terminate or suspend Customer's hosting services in accordance with the Customer's Microsoft Customer Agreement and, should this happen, Customer will not be able to access the Avolve SAAS Solution. Customer agrees that Avolve shall not be liable to Customer, Users or to any third party for any suspension or inability to access the Avolve SAAS Solution pursuant to this Section A(3). If suspended for failure to pay, upon payment in full of all amounts overdue (including any interest owed), Customer may request the reactivation of its account. Avolve shall reactivate promptly after receiving in advance all applicable reactivation fees, provided that Avolve has not already terminated this Agreement.

4. Ownership and Disposition of Customer Owned Data, Hosting Location. "Customer Data" refers to the data provided by the Customer that resides in the Customer's Avolve SAAS Solution environment, including any plan review, project drawings and associated project documents. Customer shall own all Customer Data that may reside within Contractor's hosting environment, to include Disaster recovery site, equipment and media. Contractor is granted no rights hereunder to use the Customer Data except to the extent necessary to fulfill its obligations to Customer under this Agreement. Unless approved in writing by Customer, Avolve shall host the Avolve SAAS Solution provided to Customer hereunder from a data center located within the United States. Upon termination or expiration of Customer's right to use the Avolve SAAS Solution for any reason other than Customer's uncured material breach, for the first thirty (30) calendar days following termination or expiration, Customer may request in writing that Avolve provide a copy of Customer's then-current Customer Data and, for no additional cost, Avolve shall provide a copy in a mutually agreed upon format, unencrypted and uncompressed, on media supplied by the Customer. If the parties are unable to mutually agree upon the format or the media supplied by Customer is not acceptable to Avolve, Avolve will use commercially reasonable efforts to still provide a copy of the Customer Data but Avolve may charge a reasonable professional services fee for increased costs incurred. After this time period

has expired, Avolve has no further obligation to retain the Customer Data and shall use commercially reasonable efforts to promptly delete all Customer Data from the Avolve SAAS Solution.

5. Verification. Avolve shall be permitted to audit (at least once annually and in accordance with Avolve standard procedures, which may include on-site and/or remote audit) the usage of the Avolve SAAS Solution and any other materials provided by Avolve to Customer. Customer shall cooperate reasonably in the conduct of such audits. In the event an audit reveals that (i) Customer underpaid fees to Avolve and/or (ii) that Customer has used in excess of the use rights granted herein, Customer shall pay such underpaid fees for such excess usage. Avolve reserves all rights at law and equity with respect to both Customer's underpayment of fees and usage in excess of the authorized quantities or levels.

SECTION B. – PROFESSIONAL SERVICES AND SOWS

1. Statements of Work. From time-to-time during the Term of this Agreement, the parties may enter into statements-of-work (each being an "SOW") for Avolve SAAS Solution use rights (including additional storage) and/or Professional Services on terms mutually agreed in writing between the parties in the SOW, including, without limitation, scope of services, expected deliverables, milestone dates, acceptance procedures and criteria, fees and other such matters. No SOW shall be binding until executed by both parties. Each SOW will be incorporated into and subject to this Agreement. In the case of any conflict between the SOW and this Agreement, this Agreement shall control unless the SOW specifically states otherwise.

SECTION C. – GENERAL TERMS AND CONDITIONS

1. **Fees**.

   a. Implementation SOW and Additional Storage Fees. The Implementation SOW includes the Avolve SAAS Solution subscription fees as outlined in Exhibit 3 – Pricing Agreement, as well as the training and implementation professional services; which, unless set forth otherwise in the Implementation SOW, shall be invoiced by Avolve in full, in advance on the Effective Date. Additional storage fees shall be as set forth in the then-current standard storage limits and data backup practices document, a copy of which is available from Avolve upon request. Additional storage fees will be invoiced in accordance with the then-current standard storage limits and data backup practices document.

   b. Other SOWs. Any SOWs that Avolve and the Customer may execute from time to time during the Term of this Agreement shall include within them the applicable fees, including whether the Avolve SAAS Solution subscription fees and/or Professional Services fees are being paid by Customer through Financing Company, by Customer through another paying agent, or by Customer directly to Avolve. Unless otherwise specified in the SOW, Professional Services fees will be

invoiced as the Professional Services are delivered and Avolve SAAS Solution subscription fees will be invoiced yearly, in advance, in full at the time the SOW is executed.

c. General Terms. Unless set forth otherwise in an SOW, payment on all invoiced amounts shall be due thirty (30) days from receipt of invoice.

Avolve will invoice for the Avolve SAAS Solution subscription fees yearly, in advance, with the first invoice being issued on the Effective Date of this Agreement. The Customer agrees to pay all invoiced subscription fees net thirty (30) days from receipt of invoice. All fees are due in advance, irrevocable and non-refundable (except as expressly set forth otherwise in this Agreement). Customer agrees to provide Avolve with complete and accurate billing and contact information.

2. Taxes. Fees and other charges described in this Agreement do not include federal, state or local sales, foreign withholding, use, property, excise, service, or similar transaction taxes ("Tax(es)") now or hereafter levied, all of which shall be for Customer's account. Any applicable direct pay permits or valid tax-exempt certificates must be provided to Avolve prior to the execution of this Agreement. If Avolve is required to pay Taxes, Customer shall reimburse Avolve for such amounts.

3. Term. Except if terminated earlier in accordance with this Section C(3), this Agreement shall commence on the Effective Date and shall continue for the longer of either (a) the expiration of the Subscription Term for the Avolve SAAS Solution or (b) the completion of all Professional Services under all SOWs. Except as otherwise provided in any SOW, UPON THE EXPIRATION OF THE INITIAL TERM, THE SUBSCRIPTION TERM SHALL AUTOMATICALLY RENEW FOR SUCCESSIVE RENEWAL TERMS EACH EQUAL TO TWELVE (12) MONTHS, AT AVOLVE'S THEN CURRENT FEES FOR CUSTOMER'S THEN CURRENT USAGE, UNLESS EITHER PARTY PROVIDES NOTICE OF NON-RENEWAL AS SET FORTH IN THIS SECTION C(3). Avolve will provide notice of non-renewal or a notice of the fees due for each Renewal Term at least sixty (60) days prior to the commencement of the Renewal Term. If a notice of fees is provided, it will be in the form of an invoice. Customer acknowledges that it is its responsibility to provide a current email address to Avolve and to monitor such address for such notices. Customer may elect not to renew a Subscription Term by providing notice to Avolve at least thirty (30) days prior to the commencement of the Renewal Term.

4. Termination. In addition to any termination rights that may be set forth in a specific SOW, either party may terminate this Agreement immediately upon written notice in the event that the other party materially breaches this Agreement and thereafter has failed to cure such material breach (or commenced diligent efforts to cure such breach that are reasonably acceptable to the terminating party) within thirty (30) days after receiving written notice thereof. Without prejudice to either party's rights to terminate set forth in the prior sentence, if Customer has purchased from Avolve hosting of the Avolve SAAS Solution on the Microsoft® Windows Azure™ platform, and Microsoft Corporation

terminates the Customer's Microsoft Customer Agreement during a Subscription Term, Avolve and Customer shall act in good faith to determine a mutually acceptable replacement provider promptly upon receiving notice of Microsoft Corporation's intent to terminate the Customer's Microsoft Customer Agreement.

5. Force Majeure. Any delay or nonperformance of any provision of this Agreement (other than for the payment of amounts due hereunder) caused by conditions beyond the reasonable control of the performing party shall not constitute a breach of this Agreement, and the time for performance of such provision, if any, shall be deemed to be extended for a period equal to the duration of the conditions preventing performance.

6. Confidentiality. Each party shall use commercially reasonable efforts to hold confidential information ("Confidential Information") of the other in confidence. All Confidential Information (including but not limited to data) shall (i) remain the sole property of the disclosing party and (ii) be used by the receiving party only as authorized herein. Information will not be considered to be Confidential Information if (i) available to the public other than by a breach of this agreement; (ii) rightfully received from a third party not in breach of any obligation of confidentiality, (iii) independently developed by or for a party without access to Confidential Information of the other; (iv) lawfully known to the receiving party at the time of disclosure, (v) produced in compliance with applicable law, securities reporting requirement or a subpoena, government or court order, in which case Customer shall use its best effort to notify Avolve of the request and an opportunity to intervene; or (vi) it does not constitute a trade secret and more than three (3) years have elapsed from the date of disclosure. If Avolve receives a request for Customer Data (either directly or as redirected to Avolve by the Microsoft Corporation), then Avolve shall redirect the law enforcement agency to request that data directly from Customer. If compelled to disclose Customer Data to law enforcement, then Avolve shall promptly notify Customer and provide a copy of the demand, unless legally prohibited from doing so. To the extent required by law, Customer shall notify individual Users that their data may be processed for the purpose of disclosing it to law enforcement of other governmental authorities as directed by Avolve and shall obtain the User's consent to the same.

7. Indemnification; Limitation of Liability.

   a. Indemnification. If a third party makes a claim against the Customer that any Customer's use of the Avolve SAAS Solution in accordance with the terms of this Agreement infringes such third party's intellectual property rights, Avolve, at its sole cost and expense, will defend Customer against the claim and indemnify Customer from the damages, losses, liabilities, costs and expenses awarded by the court to the third party claiming infringement or the settlement agreed to by Avolve, provided that Customer: (i) notifies Avolve promptly in writing of the claim; (ii) gives Avolve sole control of the defense and any settlement negotiations; and (iii) gives Avolve reasonable assistance in the defense of such claim. If Avolve believes or it is determined that the Avolve SAAS Solution has

violated a third party's intellectual property rights, Avolve may choose to either modify the Avolve SAAS Solution to be non-infringing or obtain a license to allow for continued use, or if these alternatives are not commercially reasonable, Avolve may terminate Customer's use rights and refund any unused, prepaid fees Customer may have paid to Avolve. Avolve will not indemnify the Customer to the extent that the alleged infringement arises from (1) the combination, operation, or use of the Avolve SAAS Solution with products, services, information, materials, technologies, business methods or processes not furnished by Avolve; (2) modifications to the Avolve SAAS Solution, which modifications are not made by Avolve; (3) failure to use updates to the Avolve SAAS Solution provided by Avolve; or (4) use of Avolve SAAS Solution except in accordance with any applicable Documentation or specifications. This section provides THE SOLE, EXCLUSIVE, AND ENTIRE LIABILITY OF AVOLVE AND ITS LICENSORS TO CUSTOMER, AND IS CUSTOMER's SOLE REMEDY, WITH RESPECT TO THE INFRINGEMENT OR MISAPPROPRIATION OF INTELLECTUAL PROPERTY RIGHTS.

b. Limitation of Liability. In no event will Avolve be liable for special, indirect, incidental, consequential, or exemplary damages, including, without limitation, any damages resulting from loss of use, loss of data, interruption of business activities, or failure to realize savings arising out of or in connection with this agreement, including without limitation use of the Avolve SAAS Solution and the provision of the Professional Services. Except for direct damages and expenses associated with Avolve's obligation to indemnify Customer pursuant to Section C (7) (a), Avolve's aggregate, cumulative liability for damages and expenses arising out of this Agreement, whether based on a theory of contract or tort, including negligence and strict liability, will be limited to the amount of fees receive by Avolve under this Agreement (which fees may have been received by Avolve from Financing Company or directly from Customer). Such fees reflect and are set in reliance upon this limitation of liability. The limited remedies set forth in this Agreement shall apply notwithstanding the failure of their essential purpose.

8. Support; Warranties.

a. Support. During the Customer's Subscription Term, at no additional cost to the Customer, Avolve shall provide the Avolve SAAS Solution in accordance with Avolve's Service Level Agreement (attached hereto as Exhibit 2).

b. Warranties. Customer warrants and covenants that it owns or otherwise has and will have the necessary rights and consents in and relating to the Customer Data so that, as received by Avolve and processed in accordance with this Agreement, they do not and will not infringe, misappropriate or otherwise violate any intellectual property rights, or any privacy or other rights of any third party or violate any applicable laws or and government regulations, including but not limited to all foreign, United States federal and United States state recording laws. If Customer is purchasing from Avolve resold rights to Microsoft Cloud for US

Government, Customer further warrants that it is one of the following: (i) a bureau, office, agency, department or other entity of the United States Government; (ii) any agency of a state or local government in the United States; (iii) any United States county, borough, commonwealth, city, municipality, town, township, special purpose district, or other similar type of governmental instrumentality established by the laws of Customer's state and located within Customer's state jurisdiction and geographic boundaries; or (iv) a federally-recognized tribal entity performing tribal governmental functions and eligible for funding and services from the US Department of Interior by virtue of its status as an Indian tribe.

c. Disclaimer. Avolve AND ITS SUPPLIERS AND LICENSORS DISCLAIM ALL OTHER WARRANTIES STATUTORY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO WARRANTY IS GIVEN AS TO ACCURACY, ERROR-FREE OR UNINTERRUPTED SERVICE. CUSTOMER ASSUMES ALL RESPONSIBILITY FOR DETERMINING WHETHER THE SERVICES, ANY AVOLVE MATERIALS, THE AVOLVE SAAS SOLUTION OR THE INFORMATION GENERATED THEREBY IS ACCURATE OR SUFFICIENT FOR ITS PURPOSES. EACH PARTY DISCLAIMS ALL LIABILITY AND INDEMNIFICATION OBLIGATIONS FOR ANY HARM OR DAMAGES CAUSED BY ANY THIRD-PARTY HOSTING PROVIDERS. Avolve makes no warranties or conditions as to any services or products distributed under a third-party name, copyright, trademark or trade name that may be offered with or incorporated with the Avolve SAAS Solution or Professional Services provided by Avolve hereunder (such as the Microsoft hosting services). To the maximum extent permitted by law, Avolve will have no liability in connection with the third-party services or products.

9. Notices: Any notices being given by this Agreement shall be in writing and shall be effective if delivered personally, sent by prepaid courier service, sent by prepaid mail, or sent by facsimile or electronic communication (confirmed on the same or following day by prepaid mail). All correspondence shall be addressed to the parties as follows:

If to Avolve:
Mr. Jay Mayne

CFO
Avolve Software Corporation
4835 E. Cactus Rd., Suite 420
Scottsdale, AZ 85254

If to Customer:
Brian Desatnik
Development Services Director
City of Redlands
35 Cajon Street
Suite 20
Redlands, CA 92373

10. Governing Law. This Agreement will be governed by and construed in accordance with the laws of Customer's state of domicile.

11. Entire Agreement. This Agreement, together with any SOWs, constitutes the entire agreement and understanding between the parties and supersedes any prior agreements, representation, or understandings, whether oral or written, relating to the services provided hereunder.

12. Severability. Should any court of competent jurisdiction declare any term of this Agreement void or unenforceable, such declaration shall have no effect on the remaining terms hereof.

13. Assignment. These services and any other information or rights provided by Avolve, may not be sold, leased, assigned, sublicensed or otherwise transferred in whole or in part. Neither party may assign this Agreement or the benefits there from in whole or in part without the prior written consent of the other party which consent shall not be unreasonably withheld. Any assignment made in conflict with this provision shall be voidable at the option of Avolve.

14. Independent Contractor. Avolve is an independent contractor and not an employee of the Customer. Any personnel performing services under this Agreement on behalf of Avolve shall at all times be under Avolve's exclusive direction and control. Avolve shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of services under this Agreement and as required by law. Avolve shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, and worker's compensation insurance.

15. Amendment. This Agreement may only be modified by written amendment signed by authorized representatives of both parties.

16. Hierarchy. The following order of precedence shall be applied in the event of conflict or inconsistency between provisions of the components of this Agreement: (i) this Agreement and (ii) the applicable Avolve Support SLA or SOW. Notwithstanding the foregoing, if any part of the Avolve Support SLA or SOW expressly states that it shall control over the Agreement, it shall so control.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the dates set forth below.

Avolve Software Corporation

By: _____

Name: Jay Mayne

Title: Chief Financial Officer, VP Operations

Date: _____

CITY OF REDLANDS

By: _____

Name: Paul T. Barich

Title: Mayor

Date: _____

ATTEST:

_____

Jeanne Donaldson, City Clerk

Electronic Document Management & Collaboration Solution

City of Redlands, CA

Statement of Work – Implementation SOW

September 9, 2022

4835 East Cactus Road Suite 420, Scottsdale, Arizona 85252
Phone: 602.714.9774 www.avolvesoftware.com

EXECUTIVE SUMMARY

This Statement of Work will focus on SaaS of a **Production and Test Environments** and the implementation of ProjectDox Best in Class workflows addressing the Customer's needs for **One (1)** Best in Class plan review process. The goal is to implement **ProjectDox** and a standard Cityworks PLL permitting system integration for ProjectDox utilizing web services, in a standardized, off the shelf manner. We will leverage Avolve best practices and built-in configuration and modifications features, to meet the most effective functionality required to achieve the highest business value for the customer (the "Project").

SCOPE OF WORK

PHASE 1 SETUP

The project kickoff will be scheduled between Avolve Software and the customer to start the project and the setup of the Production SaaS environment including installation of the below purchased workflows. Additional activities will include the development and acceptance of the project plan and identification of one 30-minute weekly status calls to occur each week over this 16-week project. Additional environments (Test) will be factored into the project plan and implemented based on the sales order/agreement.

The date of acceptance for this milestone becomes the SaaS System Annual Renewal Date.

PHASE 2 CONFIGURATION & INTEGRATION

The Avolve project manager will work with the Customer to schedule configuration workshop sessions with the Customer project team to complete the Configuration Worksheet and complete the base setup using standard templates and design to expedite the project while providing the best business value for the below workflows. This includes three (3) 2-hour sessions to cover each workflow. Any design requirements identified during this phase outside of the design of the BIC workflow process and/or requiring development will be scoped and presented in a separate Statement of Work or Change Order.

- Building Combination (Residential and Commercial) Workflow

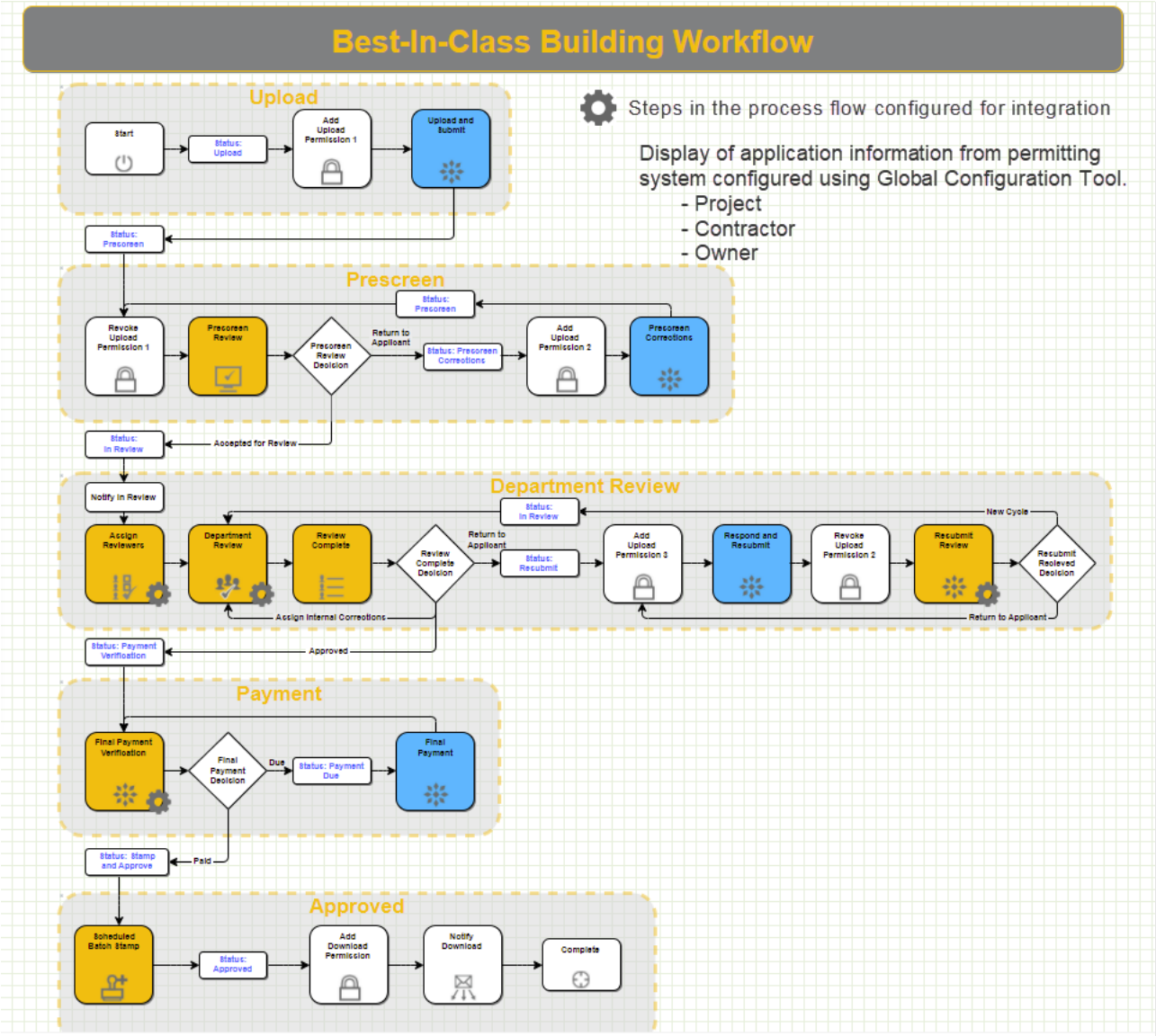
The Integration Configuration section of the Configuration Worksheet that will be reviewed with the Customer project team and used to acquire the required data and API connection/credential information to complete the defined integration. This includes two (2) 2-hour sessions.

Integration between ProjectDox and Cityworks PLL requires the Cityworks PLL permitting system to have the required API's/ web services to facilitate the communication. If API's are not currently present and functional, the Customer will need to provide the resources to develop and test any new required services and Avolve will assist in testing. Any additional integration points other that what is described below would be considered additional scope and would require additional professional services (assurance services) to cover design, development, and testing. Direct database calls are not supported. Below is a description of the integration and visual reference of their locations within the workflow.

- Cityworks PLL permitting system integration includes:

- Get Permit Information–calls the API services to retrieve defined permit information from permitting system i.e., building details, zoning type, square footage, etc.
- Get Contact Information–calls the API services to retrieve defined contacts and associated information, i.e. applicant name, address, phone, contractor name, address, phone, etc.
- Get Default Reviews – calls the API services to retrieve the predefined setup of review groups to be assigned during the Assign Reviewers task in ProjectDox. These groups are then automatically selected (checked) in the Assign Reviewers eForm.
- Add/Remove Plan Reviews – as plan reviews (Department Review) are assigned or unassigned, this is posted to the permitting system by adding/deleting/de-activating the associated reviews.
- Update Plan Reviews – Push of data to provide the permitting system the following data related to the plan review:
    - Reviewer Name
    - Reviewer Department
    - Review Cycle
    - Review Status (Approved, Rejected)
    - Date Completed

- Get Fee Balance - calls the API services to retrieve any fee balance. Some permitting systems API's can also supply details of fees due, but most only provide a current balance.
- Update Project Status Approved – Push final status or log event of approved to permitting system API indicating to the permitting system that all reviews are approved in ProjectDox.



PHASE 3 PROJECT TEAM TRAINING

The Avolve training team will schedule a training session to educate the project team on the key concepts and features of the application and workflow to provide knowledge on how to begin unit testing of the workflow(s). This course will include basic navigation of the system, creating and editing annotations on plans and how this relates to the roles within the application and workflow for plan review. The system administration training course will also be conducted for identified City users. All courses are limited to 12 persons per course session maximum.

PHASE 4 ACCEPTANCE TESTING

Integration Unit Testing (IUT)

The Integration Unit testing phase is conducted over a 5-business day per period that includes the delivery of the designed process, validation of the design by the Customer and resolution to design issues by Avolve before starting

the next sprint. The Avolve team will provide guidance to the Customer on methods to test the designed process and system meeting with the customer three (3) times for 1 hour each to work towards acceptance of the designed integrated product. Customer will validate the integration and document any identified issues in the Tracking Log document provided by the Avolve project manager. Avolve will resolve any identified issues to allow the customer retest to gain acceptance.

End to End User Acceptance Testing

The Avolve project manager will meet with the Customer three (3) times for 1 hour each to assist in the review and issue resolution for the functional end-to-end system. This phase is conducted over a 5-business day period and will allow the Customer to test and validate the full design of the system and the designed workflow(s). Any identified issues shall be added to the Tracking Log document provided by the Avolve project manager. Avolve will resolve any identified in scope issues to allow the customer to retest to gain acceptance.

Completion and acceptance of the testing will initiate the promotion of the code from the Production system to the Test system to prepare for go-live training.

- Setup of Test Environment
- Code Promotion from Production to Test

PHASE 5 TRAINING

Avolve education specialists will deliver the below courses to the Jurisdictions staff. The courses will train approximately 48 persons and will be delivered based on the project plan rollout. A maximum of 12 persons per course is enforced with exception of the Community Outreach (TES-OUT). This demonstration/lecture session is targeted for the design community and is intended to be conducted for larger audiences (25+) to educate and promote the new processes.

It is recommended that training sessions be organized with participants of similar technological abilities to allow for the most efficient delivery and retention of the materials. Additional training above and beyond the courses below may be added, or additional training may be performed post go-live by leveraging the assurance services funds afforded by the project.

- Delivery of classes for all products/modules as purchased

Quantity	Course Name	Est. Length
4	Introduction to ProjectDox	3 hrs.
3	Workflow & Markup for Plan Reviewers	6 hrs.
1	Workflow and Project Administration for Coordinators	6 hrs.
1	System Administration	4 hrs.
1	Community Outreach	1-2 hrs.

PHASE 6 GO LIVE/LAUNCH

The Avolve project manager will assist the customer with any product related errors or questions regarding the software for a period of 5-business days post go-live. After the 5-business day go-live period the project will be considered complete, and the customer shall be introduced and transitioned to the Avolve support team. The extension of support from the project manager can be extended with the purchase of post go live subscription services program.

- Go-Live

- Transition to Support

ASSURANCE SERVICES

The assurance services fund may be leveraged at any time during or post project completion to cover additional integration requirements, newly identified out of scope requirements, training, and software not included in this statement or work. The funds intent is to be used post go-live/launch of a process to keep the project management team engaged to assist with change management and user adoption assistance. Assurance services hours are billed on an hourly basis at a rate of $225.00 an hour. The use of hours requires a change order or an assurance services agreement that defines the work and has signatures of agreement for use by the Customer.

ACCEPTANCE PROCESS

There will be Key Deliverables within the identified phases of the project as identified in the Project Activities/Deliverables Schedule which will be subject to acceptance by the Customer ("Acceptance"). Upon completion of each Key Deliverable, Avolve will request from the Customer a written response/acceptance within five (5) business days after receipt thereof. Notwithstanding the foregoing or anything to the contrary in the Purchase Agreement, all other Deliverables provided under this Statement of Work shall be deemed to have been accepted by the Customer upon delivery. If Customer does not approve, reasons for rejection must be clearly noted. Avolve will then work with the Customer to come to agreement on obtaining approval. The Customer shall be deemed to accept any such Key Deliverable which Customer does not accept or reject within such period. This acceptance will initiate the invoice of the milestone, if applicable.

AVOLVE PROJECT PLAN AND PROCESS

Promptly following execution of this Statement of Work, the parties shall meet to discuss the general project schedule, which will be organized around the standard Avolve project On-Boarding process. Within 2 weeks, the initial project plan will be created and sent to the Customer. The Project Plan contains a schedule, a list of tasks in a schedule format, assignments of specific team members over specific times and communication status reporting processes. The Project Plan is a living document that will be reviewed throughout the term of this Agreement and may be adjusted as reasonably necessary, as agreed to from time to time by the parties involved.

PROJECT ASSUMPTIONS AND CAVEATS

1. This Project was scoped based upon purchase of ProjectDox Best In Class, understanding that the site will be hosted by Avolve and configured per established Best-In-Class standards. This understanding forms the basis for Avolve's pricing and the Deliverables to be provided under this Statement of Work. Any deviation from these requirements will require a change order and may increase cost or estimated time of Project completion.

2. Avolve will have full access to all Project team members from the customer, as needed, to complete the successful implementation and roll out of ProjectDox. This access may require the team members of the customer to dedicate specific time to specific detailed tasks within the Project Plan. Team member tasks will be more clearly defined during the kickoff and planning sessions and documented in the Project Plan.

3. Customer and its third parties and/or subcontractors will fulfill any hardware/software requirements, including the purchase/development of API's for integration to allow for communication between Avolve Software and the Customer's permitting system in a timely fashion in order to keep the Project Plan on schedule.

4. This best approach package to implementation relies on partnership with the jurisdiction to achieve desired go-live goals. To that end, a not to exceed of 144 hours have been allocated to the project for professional service. Should the customer cause or contribute to the delay of any Deliverable, extend scope of schedule and/or scope of work incremental costs may be associated and may result in compilation of a formal Change Order to denote said changes.

5. Cancellation or reschedule requests within 72 hours of an upgrade and/or training date may result in a 20% cancellation fee. The 20% fee will be calculated on the total services for the project minus any Assurance Services.

6. All parties will reasonably prioritize their efforts to meet the Project Plan schedule in order to achieve a rapid roll out model. It is understood by all parties that multiple tasks may be in process at one time and Avolve may have more than one Professional Services team member working on the project at one time.

7. Client will provide adequate Project management for their own resources, and/or third parties, to collaborate with Avolve's project manager. Client subject matter experts and applicable users will be accessible and available in a timely fashion and for adequate and reasonable durations. Avolve will make sure that scheduling of meetings is done adequately in advance of these resource allocations.

8. Avolve has scoped and intends to fully leverage ProjectDox as is, utilizing all built in configuration features to setup the processes using the Configuration Worksheet as a guide to meet the business needs.

9. Any optional items chosen in the Purchase Agreement/Sales Order are not included here and would require a modification to this Statement of Work.

10. Customer understands that an ePlan Life Cycle implementation is a very significant digital transformation enterprise project that requires dedicated change management from the Customer's staff. This will be key for the success of the Customer.

11. Work will not begin until an executed copy of all paperwork is complete. Work will begin at the earliest date at which Avolve resources and Customer resources are available or as otherwise agreed to.

12. Avolve and Customer agree to cooperate in good faith to complete the Services and Deliverables in a timely and efficient manner.

13. Recording of Avolve provided training or UAT (user acceptance testing) sessions is not permitted.

14. All training classes unless otherwise noted are limited to 12 persons maximum per class.

15. In the event the Customer delays the progression of the implementation and Avolve Software resources are placed on-hold and/or removed from the project, Avolve Software will not guarantee Project Managers and/or Technical Avolve resources will be available to re-deploy immediately upon resolution of the issue. In this event, Avolve Software resources will be rescheduled to the next available timeframe.

**Configuration options are as described by ProjectDox documentation and as evidenced by ProjectDox administration screens. Minor changes to Avolve ProjectDox Best Practices (Best in Class) workflows are changes to activate/deactivate and/or parametrize with variables, existing steps in the Best Practices workflows. Customization of additional products and modules are to be within the bounds and scope of the respective core product(s) and modifications are limited to those that are allowed by core product design.*

CHANGE CONTROL PROCESS

The "Change Control Process" is that process which shall govern changes to the scope of the Project during the life of the Project. The Change Control Process will apply to new components and to enhancements of existing components. The Change Control Process will commence at the start of the Project and will continue throughout the Project's duration. Additional procedures and responsibilities may be outlined by the Project Manager identified on the signature page to the Agreement and will be included in the Project Plan if mutually accepted.

Under the Change Control Process, a written "Change Request" (attached) will be the vehicle for communicating any desired changes to the Project. It will describe the proposed change; the reason for the change and the effect the change may have on the Project. The Project Manager of the requesting party will submit a written Change Request to the Project Manager for the other parties.

All parties must sign the approval portion of the Change Request to authorize the implementation of any change that affects the Project's scope, schedule or price. Furthermore, any such changes that affect the scope of this SOW, schedule or price will require an amendment to the SOW and/or any other part of the Purchase Agreement.

PRICING, TRAVEL AND EXPENSE

Pricing and payment terms are as set forth in Exhibit 3 of the Agreement to Perform Professional Services.

- Professional Service hours will be invoiced monthly as time and materials based on the rate for the applicable resources. Avolve will provide monthly balances for hours remaining for the project.
- Training will be invoiced as courses are completed at the identified fixed price provided in the Purchase Agreement/Sales Order.
- Travel and Expenses are estimated to be $10,000.00 and will be invoiced to customer as incurred for trips to the Customer offices. Customer will only be invoiced for actual incurred expenses.

PROJECT ACTIVITIES / DELIVERABLES PAYMENT SCHEDULE

Preliminary project and deliverable schedules are provided and are subject to change based on discussions to occur post the kick-off of the project, provided that both the Customer and Avolve Software agree to the new terms in writing. The project scope and associated costs is based on a 12-week implementation schedule.

12 WEEK SCHEDULE

Schedule	Deliverable
Week 1 – Kick Off	• Project Kick Off Meeting • Project Plan
Week 2 – System Setup	• ProjectDox system delivered for use
Week 3 – Configuration Sessions	• Configuration Workshops • Integration Workshops
Week 4 – Customer Configuration Worksheet Completion	
Week 5 – Configuration	
Week 6 – Integration Configuration	• Deliver Functional System
Week 7 – Project Team Training	• Scheduled Project Team Training Course • Applicant, Reviewer and Coordinator Quick Reference Guides
Week 8 – User Acceptance Integration Unit Testing	
Week 9 – User Acceptance Workflow Testing	• Provide final system configuration worksheet • Provide final Configuration Requirements Document or CRD
Week 10 – Test Environment Setup	• Functional Test Environment
Week 11 – Go Live Training	• Go Live Training as identified in the SOW
Week 12 – Go Live	• Launch of System • Transition to Support

Est Schedule	Project Phase	Deliverables	Deliverable/Acceptance Criteria
Week 2	Setup	• Project Kick Off Meeting • Project team can log into installed environment • Project Plan	Setup and SaaS Renewal Sign Off
Week 6	Orientation and Config	• Configuration Workshops • Integration Workshops • Deliver Functional System • Project Team Training Scheduled	Sign off Acceptance Document
Week 7	Project Team Training	• Project Team Training Course • Applicant, Reviewer and Coordinator Quick Reference Guides	Sign off Acceptance Document
Week 9	UAT	• Provide final system configuration worksheet • Provide final Configuration Requirements Document or CRD • Functional Test Environment	Sign Off Acceptance Document
Week 11	Go Live Training	• Go Live Training as identified in the SOW	Sign Off Acceptance Document
Week 12	Launch/Go-Live	• Launch of System • Transition to Support	Sign Off Acceptance Document
	Assurance Services	• Invoiced monthly as time and materials	

For the avoidance of any doubt, all right, title and interest in and to the Deliverables (including without limitation the above Key Deliverables), as well as the intellectual property rights to such Deliverables, shall belong to Avolve, subject to the limited license granted to the Customer pursuant to the Licensing Agreement.

STATEMENT OF WORK ACCEPTANCE

Once fully executed, this document will become the Statement of Work for the Project defined in this document. Avolve and Customer's signatures below authorizes Avolve to begin the services described above and indicates Customer's agreement to pay the invoices associated with these services delivered as described.

SOFTWARE ACCEPTANCE DATE AND MAINTENANCE

Avolve will invoice Customer for Software Maintenance following the Software Acceptance Date and Customer shall pay such invoiced amount pursuant to the terms of the Purchase Agreement/Sales Order. For all subsequent years of Software Maintenance purchased by Customer, invoicing and payments shall be as set forth in the Purchase Agreement/Sales Order.

AUTHORIZED SIGNATURES

Avolve Software Corporation

By: _____

Name: Jay Mayne

Title: Chief Financial Officer, VP Operations

Date: _____

City of Redlands, CA

By: _____

Name: Brian Desatnik

Title: Development Services Director

Date: _____

EXHIBIT A: CHANGE REQUEST FORM

avolve professional services

Avolve Software Change Request Form

City of Somewhere

/

GENERAL INFORMATION								
Change Request # (CR)								
Project/City/County								
Requestor Name								
Description of Change	*[Enter a detailed description of the change being requested]*							
Date Submitted								
Priority		Low		Medium		High		Required
Reason for Change Request	*[Enter a detailed description of why the change is being requested]*							
Project Artifacts Impacted	*[List other artifacts affected by this change]*							
Assumptions/Risks	*[Document assumptions or comments regarding the requested change]*							
Comments/Considerations	*[Enter additional comments]*							
Attachments/References								

ESTIMATES		
Total Estimated Development Hours	*[#hrs]*	*[Enter the hour impact of the requested change]*
Total Estimated Development Duration	*[#dys]*	*[Enter the duration impact of the requested change]*
Schedule Impact	*[WBS]*	*[Detail the impact this change may have on schedules]*
Cost Impact	*[Cost]*	*[Detail the impact this change may have on cost]*
Comments/Recommendations		
PM Approval Signature		
Date Signed		
IDS Approval Signature		
Date Signed		

CITY OF SOMEWHERE AUTHORIZATION	
Customer Approval Signature	
Date Signed	

Avolve Software 01/01/2015 Page 1 of 1

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EXHIBIT 2 – SERVICES SERVICE LEVEL AGREEMENT (SLA)
SUPPORT PROCESS AND SERVICE LEVEL AGREEMENT

Avolve's current support process and service level commitments ("Support") are defined below.

Support Portal. Avolve provides Support through its Support Portal (https://support.avolvesoftware.com). All issues can be logged using the portal or through an on-call support number. Customer personnel receive Support Portal login credentials promptly following purchase of rights to use the Avolve SAAS Solution. After a login is received, the Customer may enter, track, update, and report on trouble ticket, as well as communicate with Avolve helpdesk staff via phone, email, web meeting, and/or ticket notes. Help, FAQs, Documentation, and a Knowledgebase are also available at the Avolve support portal.

Support Hours. 8 AM – 5 PM MST.

Planned Downtime. Avolve or its third-party agent may render the Avolve SAAS Solution unavailable in order to perform upgrades, updated, patches, enhancements and routine maintenance activities, so long as the Avolve SAAS Solution is only unavailable to Customer and its Customer Users outside of the hours of 7 AM through 9 PM East Coast Time on business days during the Subscription Term. Avolve shall provide no less than five (5) days advance notice to Customer of any planned downtime. Customer acknowledges that in the case of emergencies, Avolve or its third-party agents may render the Avolve SAAS Solution unavailable in order to address the emergency. In such situations, if reasonably feasible, Avolve will provide notice to Customer in advance of rending the Avolve SAAS Solution unavailable or, if not reasonably feasible, notice to Customer promptly following the rendering of the Avolve SAAS Solution unavailable. Customer understands and agrees that Avolve shall not be liable for any such interruption in access to the Avolve SAAS Solution for downtime occurring pursuant to this paragraph (collectively, referred to herein as "Planned Downtime").

On-Site Emergency Support. Customer may request on-site emergency operational support services as a separate and distinct billable service. In such cases and at its discretion, Avolve will dispatch appropriate technical staff to deliver on-site technical services.

Problem Determination and Resolution. Avolve resources are allocated to resolve reported problems based on the severity level as described in the following table. Avolve uses commercially reasonable efforts to provide a prompt acknowledgement, acceptable resolution, workaround, or a plan for the provision of a resolution or acceptable workaround in the timeframe set forth below:

Incident Response, Resolution, and Restoration Times					
Severity Level	**System Down**	**Critical**	**High**	**Medium**	**Low**
Response Time	1 hour	4 business hours	12 business hours	24 business hours	48 business hours
Resolution Time	Reasonable Best Effort	Reasonable Best Effort	Reasonable Best Effort	Reasonable Best Effort	Reasonable Best Effort
Incident Reports	24 Hours	n/a	n/a	n/a	n/a

*Normal Business Hours: 8:00 a.m. through 5:00 p.m. Mountain Standard Time, Monday through Friday (excluding standard holidays).

Support Classification Definitions:

- Response Time. Once a problem has been reported, the Customer receives an acknowledgement by email, chat, phone or the through the support portal. Avolve will begin the process of problem

determination and resolution at this point. The time the ticket is submitted, and the response time will be logged to ensure SLA is met.

- Status Updates. During the problem determination and resolution process, Customer may receive regular communications, via email, chat, phone, or the support portal, as to the status of the problem determination and resolution. All communications should be logged in Avolve's support system including date, time, and contact name. This helps Avolve and the customer determine the status and duration of the issue reported. Any communications outside the support portal, unless scheduled by Avolve Support such as an online conference (e.g., Zoom or Teams), will not be considered as part of Avolve's SLA. Tickets forwarded to Avolve Development/QA or 3rd Party Software company for further analysis or patch development, may result to delayed updates to the customer.

- Resolution Time. It is the time the issue should be resolved. In some instances, a resolution may still be a temporary fix beyond the viable workaround. This incident occurs if the solution requires a product patch and/or product upgrade that result to a longer resolution schedule.

- Severity Re-classification. Avolve and the Customer can reclassify the severity of a ticket if required.

Severity Type Definitions:

- System Down: A complete system failure impacting Customer's ability to use the system that affects their business operations. From a time management perspective, it is urgent and important. Examples of a system down severity is when all users are unable to login or various errors occur simultaneously for all users. Avolve Support will respond to the ticket within 1 hour and try to restore the system within 4 hours. Customer's administrators, IT, and/or users experiencing the issue may need to be available to help address specific tickets. If it requires further investigation and longer resolution time, a temporary workaround (i.e., restoration) will be determined with the Customer to allow operations to proceed during business or non-business hours. Status updates will be provided periodically, on a System Down tickets 24x7 until resolution. Infrastructure issues are often resolved quickly by service or system restart. Any potential system alerts will be promptly addressed in an effort to avoid issues from reoccurring. Avolve will create a new ticket with a low severity rating if the issue has been resolved but require further root-cause analysis.

- Critical: An application failure impacting 1 or more end-users' ability to use the system and affects critical operations that need to be addressed immediately. From a time management perspective, it is urgent and important for some users. Examples of a critical severity is when 1 or more users are unable to upload files, batch stamp approved plans, open several files, or run reports after several attempts. Avolve Support will respond to the issue within 4 hours and try to resolve the issue within 6 hours. Customer's administrators, IT, and/or users experiencing the issue may need to be available to help address specific issues. If it requires further investigation and longer resolution time, a temporary workaround (i.e., restoration) will be determined with the customer to allow operations to proceed during business hours. Critical tickets will be immediately worked on until restoration from Monday to Friday (excluding US holidays) and within business hours. Any issue that requires work beyond work hours will be addressed on the following workday and within business hours. Avolve will create a new ticket with a low severity rating if the issue has been resolved but require further root-cause analysis.

- High: An error that causes Avolve product to fail with minimal business impact. From a time management perspective, it is not urgent but important. Examples of a high severity are intermittent but frequent operational errors that need to be addressed. Avolve Support will respond to the issue within 12 business hours and try to resolve the issue within 24 business hours. If it requires further investigation and longer resolution time, a temporary workaround will be determined with the customer to allow operations to proceed during business hours. Support will work on the issue from Monday to Friday (excluding US holidays) and within business hours. Any issue that requires work

beyond business hours will be addressed on the following workday and within business hours. Avolve will create a new ticket with a low severity rating if the issue has been resolved but require further root-cause analysis.

- Medium: An error that causes Avolve product to fail with no significant business impact. From a time management perspective, it is not urgent and slightly important to some users. Examples of a medium severity are how-to questions, or specific issues only occurring to a single end-user. Avolve Support will respond to the issue within 24 business hours and resolve the issue within reasonable best efforts. Support will work on the issue from Monday to Friday (excluding US holidays) and within business hours. Any issue that requires work beyond business hours will be addressed on the following workday and within business hours.

- Low: A service request for a new feature, additional documentation, or an explanation of product functionality that does not impact business operations. From a time management perspective, it is not urgent with low importance. Avolve Support will respond to the issue within 48 business hours and resolve the issue within reasonable best efforts. Support will work on the issue from Monday to Friday (excluding US holidays) and within business hours. Any issue that requires work beyond business hours will be addressed on the following workday and within business hours.

Unsupported Issues. Avolve does not cover under Support, and the SLA does not include the following conditions (collectively, the "Unsupported Issues").

- Any Avolve SAAS Solution use not covered by an active support contract and/or not in compliance with a valid agreement with Avolve. Authorized users of the Avolve SAAS Solution are entitled to Support as part of their use fee.

- End-user's computer hardware/software configurations such as OS (e.g., Linux or older Windows versions) or browser versions not supported by Avolve.

- Problems caused by misuse or misapplication of the Avolve SAAS Solution, including any anomalies and/or failures in test or production operating environments that impact the Avolve SAAS Solution and are determined to have their cause due to unwarranted Customer decisions, actions, system configuration/ modification, policies and/or procedures.

- Problems caused by Customer's custom application code authorized to be developed using Avolve APIs as set forth in the documentation accompanying such API and the Customer's Agreement.

- Problems caused by updates or upgrades of 3rd party applications that are integrated with Avolve products and/or services.

- All Training programs, regardless of software version updates and/or upgrades.

- On-premises type of support including but not limited to: (a) End-user's Windows configuration issues; (b) On-prem firewall or other security device configuration; (c) On-prem VPN, proxy servers, or other internal devices that connect to the Avolve SaaS solution; (d) Customer DNS, SSL certifications, or Azure AD configurations and updates if used for the Avolve SaaS solution; (d) On-prem or end-user's network performance monitoring and updates; (e) End-User browser support; (f) User-modified and new workflows or eforms. Additional services may be purchased for an additional fee.

- Any other reasons set forth in the Customer's Agreement, including without limitation any down-time due to Microsoft Corporation.

Avolve, in its sole discretion, shall determine whether any of the foregoing exclusions are applicable to Customer. Any services provided for exclusions shall be paid by Customer at Avolve's then-current rates, as well as all travel and other expenses incurred by Avolve in providing such services.

Customer's Obligations for Operational Support. To facilitate clear and consistent communication and timely issue resolution, Customer shall designate up to two contact persons for technical support processes. These individuals are responsible for initiating support requests, communicating with Avolve technical support personnel, and monitoring the support process with Avolve. Timely Customer response to Avolve requests for information during issue resolution is a necessary pre-requisite to Avolve's providing Support. Avolve also requires remote access to the Customer system for the purpose of problem determination and analysis. Where reasonably necessary to provide Support, Customer shall provide Avolve's technical support personnel reasonable, remote access capabilities into Customer's systems. Upon Avolve's request, Customer will also provide reasonable supporting data to aid in the identification and resolution of the issue.

Service Level Commitments

Uptime commitment. Per Avolve's SaaS agreement, Avolve will use commercially reasonable efforts to make the Avolve SAAS Solution available. The Annual Uptime Percentage has 2 components: The infrastructure uptime, which is dependent on Microsoft's SLA; Avolve software, which is 99.5%, excluding Planned Downtime. In the event that Avolve does not meet this uptime commitment, Customer will be eligible to receive a service credit for 1% of the monthly fee for each one (1) hour of downtime during Customer's normal business hours, up to 50% of Customer's Pro-Rated Monthly Subscription Fee.

Definitions

- "Annual Uptime Percentage" is calculated by subtracting from 100% the percentage of 10-minute periods during a calendar month in which the Avolve SAAS Solutions was Unavailable to Customer.
- "Availability" means the ability to log into the Avolve SAAS Solution.
- "Claim" means a claim for a service credit Customer submits by opening a support case with Avolve, on the basis that the hosted Avolve SaaS Product infrastructure has been Unavailable to Customer during a service month.
- "Pro-Rated Monthly Subscription Fee" is calculated by dividing the Customer's applicable annual Avolve SAAS Solution subscription fee by twelve.
- "Unavailability" means the inability to log into the Avolve SAAS Solution.

Service Credit Requests

To receive a service credit, Customer must notify Avolve and submit a Claim within thirty (30) days from the incident that would be the basis for the claim. To be eligible, the Claim must include (a) the dates, times, description, and duration of each incident experienced; and (b) the Customer's event logs or any other system telemetry that document the errors and corroborate the claimed Unavailability (any confidential or sensitive information should be removed). Failure to provide a timely Claim, which includes all the required information, will disqualify the Claim and Customer from receiving a service credit. If Avolve validates the Claim, then Avolve will promptly issue the service credit.

Service Credit Provisions

Service credits are Customer's sole and exclusive remedy for any failure of Avolve to provide the Avolve SAAS Solution in accordance with the terms of the Agreement. Service credits shall be a credit toward future services only and do not entitle Customer to any refund or other payment from Avolve. Service credits may not be transferred, applied to another account, exchanged for, or converted to monetary amounts.

The maximum service credits awarded with respect to Claims the Customer submits in any calendar month shall not, under any circumstance, exceed in the aggregate 50% of the Customer's Pro-Rated Monthly Subscription Fee for such month. Avolve will use all information reasonably available to it to validate Claims and make a good faith judgment on whether a service credit should be applied to the Claim.

SLA Exclusions

This SLA does not apply to any Availability or Unavailability of the Avolve SAAS Solution:

- During Planned Downtime;
- Caused by Unsupported Issues;
- Caused by factors outside of Avolve's control, including any force majeure event or interruption or impediment to Internet access or related problems;
- That result from Customer's equipment, software or other technology and/or third-party equipment, software or other technology, including any third party hosting providers;
- That resulted from Planned Maintenance or associated to beta, evaluation, non-production systems, and trial services accounts;
- That result from any actions or inactions from Customer or any third party, including employees, Users, agents, contractors, or vendors, or anyone gaining access to the hosted Avolve SaaS Product infrastructure by means of Customer's (and its Users') passwords or equipment;
- Arising from Avolve's suspension and termination of Customer's right to use the hosted infrastructure in accordance with the Agreement; and
- That result from Avolve application software implementation errors caused by configuration, customization, installation, or human errors.
- Avolve, in its sole discretion, shall determine whether any of the foregoing exclusions are applicable to Customer. Avolve may, but is not obligated to, issue a Service Credit in Avolve's sole discretion where Customer's use of the Avolve SAAS Solution may be Unavailable due to factors other than expressly provided here in this SLA.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the dates set forth below.

Avolve Software Corporation

By: _____

Name: Jay Mayne

Title: Chief Financial Officer, VP Operations

Date: _____

ATTEST:

_____

Jeanne Donaldson, City Clerk

CITY OF REDLANDS

By: _____

Name: Paul T. Barich

Title: Mayor

Date: _____

City of Redlands, CA

Exhibit 3 - Pricing Agreement

November 15, 2022

Prepared by your Avolve Software Representative

Chris Taddonio
Western Region Sales Director
4835 East Cactus Road
Suite 420
Scottsdale, AZ 85254
www.avolvesoftware.com

Telephone: (602) 903-3111
Email: ctaddonio@avolvesoftware.com

ProjectDox® Pricing Agreement

Quote Delivered To

Tricia Munoz
35 Cajon Street
Redlands, CA
92373

Management Analyst
tmunoz@cityofredlands.org

Date of Quote: 1/11/2022

City of Redlands, CA
(909) 335.4755 x9

Quote Valid Until: 11/30/2022

ProjectDox ePlan Solution Pricing Agreement

SAAS – 1ST YEAR SUBSCRIPTION

Product Name	Product Code	Description	Qty	Unit Price		Total Price
Production Environment Light-Level Capacity ProjectDox SaaS License	SAAS.PDOX -P.L	Software as a Service (SaaS) for ProjectDox on a Production Environment. Designed for organizations who have approximately 50 concurrent users and 3,000 plan checks per year. Software included for SaaS Production: • ProjectDox Software Subscription • Unlimited Workflow license Services included for SaaS Production: • Set up and installation of ProjectDox • Managed services • Annual ProjectDox upgrades -Technical Support Production Environment Safeguard: Avolve security policy limits access to the Production environment. External users including the customer's IT will not be allowed direct access to the Production servers and database. Any development or testing can be performed on the Test environment.	12.00	$6,000.00		$72,000.00
Test Environment Light-Level Capacity ProjectDo x SaaS License	SAAS.PDOX -T.L	Software as a Service (SaaS) for ProjectDox on a Test Environment. Designed for organizations who plan to use the system for development and/or testing with approximately 5 concurrent users and approximately 500 permits per year. Software included for Production: • ProjectDox Software Subscription • Unlimited Workflow license Services included for SaaS Production: • Set up and installation of ProjectDox • Managed services • Annual ProjectDox upgrades Test Environment Safeguard: Avolve security policy limits access to the Test environment. External users including the customer's IT can	12.00	$980.00		$11,760.00

		be provided limited VPN access to the Test servers and database such as creation and testing of custom reports. VPN access will be made available upon request at additional cost.				
SaaS Cityworks Integration	SaaS-CW.Int	Avolve and Cityworks SaaS integration with ProjectDox and Cityworks Permit Licensing and Land (PLL) Integration includes: PLL with ProjectDox: - Create Projects - Get Permit Info - Get Contact Info - Get Default Reviews - Add/Remove Plan Reviews - Update Plan Reviews Get Fee Balances - Update Project Status Approved	1.00	$6,000.00		$6,000.00
TES-Video License Subscription	TES-VLS	Embedded "How To" videos which provide online assistance for applicants and training refreshers for city staff	1	$5,400.00		$5,400.00
					SaaS Sub-Total:	$95,160.00

TRAINING – SERVICES SKU (ONE TIME)

Product Name	Product Code	Description	Qty	Unit Price		Total Price
ProjectDox Bundled Training Services	PKG-PDOX.TRN	Package Includes: 2 Introduction to ProjectDox 1 Workflow and Markup Training for Reviewers 1 Workflow and Project Administration for Coordinators 1 System Administration Training 1 Community Training Package is limited to 12 Unique Users	1.00	$13,050.00		$13,050.00
Workflow & Markup Training for Reviewers	TES-WF.MU.R	Instructor led lecture, demonstration, and hands-on activity to learn the workflow review process and Viewer tools and features. Course participation is estimated at 6 hours.	2.00	$3,350.00		$6,700.00
Introduction to ProjectDox	TES-INTRO	The Training and Educational Services course includes a flexible mixture of lecture and hands-on lab time to familiarize the user with the basic features of ProjectDox. This 3 hour instructor lead course will review how to access a project, view a file, use the search feature and communication tools to efficiently use and communicate using the ProjectDox application. This course is limited to a max of 12 persons per session/course.	2.00	$1,125.00		$2,250.00
					Training Sub-Total:	$22,000.00

PROFESSIONAL SERVICES – SERVICES SKU (ONE TIME)

Product Name	Product Code	Description	Qty	Unit Price		Total Price
Best-in-Class Level 1 ProjectFlow PLUS Services	PS-BIC.L1PLUS	BIC Plus Setup Services Level 1 for Workflows: Building Plan Review	1.00	$30,600.00		$30,600.00
SaaS Cityworks Integration Services	PS-SaaS.CW.Int	Avolve configuration services to implement the SaaS Cityworks integration subscription.	1.00	$1,800.00		$1,800.00
Assurance Services	PS-AS	45 Hours of Assurance Services - Invoiced monthly as used $225/hour.	0.50	$10,125.00		$5,062.50
					Professional Services Sub-Total:	$37,462.50

Unless otherwise stated, pricing does not include any applicable taxes that may be applied at invoicing. Travel and Expenses are not included in this total and will be invoiced as incurred. First year SaaS and 20% of Services shall be invoiced upon execution of Agreement. Payment for the total amount is due net thirty (30) days from the date of Initial Invoice. Payment via EFT. See notes for details. This best approach package to implementation relies on partnership with the jurisdiction to achieve desired go-live and paperless goals. To that end, a not to exceed 265 hours have been allocated to services and training on this project. In the event scope expands or delays account for incremental hours to be required, a Change Request(s) will be issued for the incremental costs associated with delay or expansion.	**Grand Total:**	$154,622.50

OPTIONAL PROFESSIONAL SERVICES – SERVICES SKU (ONE TIME)

Product Name	Product Code	Description	Qty	Unit Price		Total Price
Best-in-Class Level 1 ProjectFlow PLUS Services	PS-BIC.L1PLUS	BIC Plus Setup Services Level 1 for Workflows: Planning Plan Review	1.00	$30,600.00		$30,600.00
Best-in-Class Level 2 ProjectFlow PLUS Services	PS-BIC.L2PLUS	BIC Plus Setup Services Level 2 for Workflows: Fire Plan Review	1.00	$22,500.00		$22,500.00
Best-in-Class Level 1 ProjectFlow PLUS Services	PS-BIC.L1PLUS	BIC Plus Setup Services Level 1 for Workflows: Engineering Plan Review	1.00	$30,600.00		$30,600.00
					Professional Services Sub-Total:	$83,700.00

Infrastructure Architecture

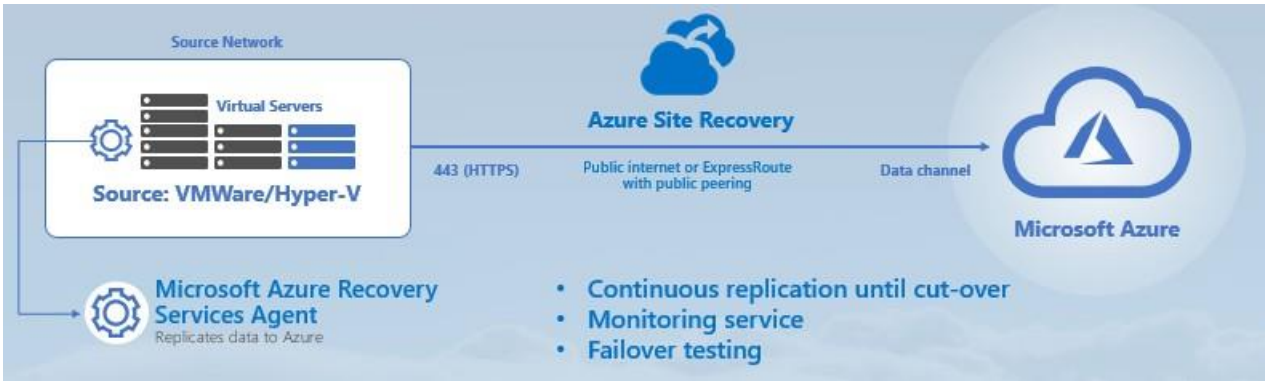
Avolve SaaS Infrastructure Design

Each Avolve customer is setup in Avolve SaaS environment. Every customer's files and data will be on separate storage environments. Avolve continues working with Microsoft to optimize and evolve its architecture to take advantage of several Azure features for security, scalability, and performance purposes.

Disaster Recovery and Backup Process

Avolve Software Corporation develops, maintains, and periodically tests its disaster preparedness and recovery plan. The Avolve Software Disaster Recovery (ASDR) plan for Azure supports continuity of operations and systems availability if a disaster or other unplanned business impacting event occurs in the Microsoft Azure Cloud Services environment. The ASDR Plan has been developed, reviewed, and tested according to Avolve Software Corporation's Business Continuity Planning Policy and Procedures, a subset of the Avolve Information Security Policy and NIST compliance objectives.

Avolve Disaster Recovery Services on Avolve SaaS:
Avolve SaaS includes Microsoft Azure Site Recovery (ASR) service in addition to standard Azure Backup Service. Avolve will manage the replication, failover, and recovery processes through ASR to help keep the jurisdiction's application running during planned (excludes software upgrades) and unplanned outages. With ASR, Avolve orchestrates and manages the backup and frequency of the Hyper-V servers, files, and database.



Site Recovery is a native disaster recovery as a service (DRaaS), and Microsoft has been recognized as a leader in DRaaS based on completeness of vision and ability to execute by Gartner's Magic Quadrant for Disaster Recovery as a Service.

RPO and RTO

In the IT world, any event that threatens or causes the loss of data important to business operations can rightly be called a "disaster." A disaster can be as encompassing as a complete infrastructure failure and as isolated as someone unintentionally deleting or overwriting files.

Recovery Point Objective (RPO) and Recovery Time Objective (RTO) are terms used in conjunction with disaster recovery.

RPO denotes how much data loss will be allowed to occur in the immediate wake of an outage or failure. The shorter the RPO, the more capable the data recovery system must be in order to minimize data loss. In the case of Azure Site Recovery, the data image is updated every 5-10 minutes, so if an outage requiring ASR for recovery occurs, the system will have retained all data in the ASR system up until ten minutes prior to the outage.

Recovery Time Objective (RTO) is understood as the amount of down time an organization can tolerate before it must return to operations after an outage. Avolve customer environment using Azure Site Recovery should be operational within two (2) hours of a disaster recovery event. The RTO time is also dependent on Avolve's 3rd party DNS provider's ability to distribute the updated DNS address within North America and to the rest of the world. Avolve has tested the DNS change can occur within 2 hours in the United States.

Avolve Backup Process on MS Azure:

Azure Backups is another business continuity, data loss prevention component of ASDR.

Data backups are required for SQL data, File data and Operating System configuration data, and are performed daily. File and system data is backed up incrementally. SQL transaction logs are normally captured every 5-10 minutes, while the database itself is included in the daily backup.

Triple Redundancy

Using the Azure Virtual Machine (VM) extension, Azure Backups, by default, creates three copies of the files and data for a customer environment within the same region as the primary site, known as "Locally Redundant Storage" or LRS. This triple redundancy all but guarantees that customer data will never be completely lost. LRS does not necessarily mean that backups share the same/adjacent physical infrastructure – it is a regional designation.

All servers are backed up nightly. All backups are retained for 14 days at two regions. For the primary and secondary regions, all backup copies will be within the closet region from your location. Each region consists of multiple data centers.

For the primary region, Azure stores 3 copies of the content across multiple data centers in the region. This provides uninterrupted access during disaster events. Transactions are also replicated synchronously.

Backups are transmitted to the paired secondary region via secure fiber loop. Azure backup process stores 3 extra copies of the content. The transaction will be asynchronous to the secondary data centers (500+ miles away from the primary location). This gives the jurisdiction a total of 6 copies of the data backup distributed in the primary and secondary regions.

Change in Capacity and Additional Storage:

The system resources and storage are based on the selected capacity level for the jurisdiction. Capacity levels are determined from the number of concurrent users and number of permits. The capacity is calculated based on Avolve's historical consumption results from various customers on Avolve's Cloud and Microsoft's recommendations. The selected capacity is a best case estimate and is subject to change based on usage and strategic plans of the jurisdiction on the percentage growth for a paperless system. An annual system review will be conducted to determine if any system resource adjustments are necessary. When system resources need to be increased for performance improvements or storage capacity has reached 75%, additional resources will be recommended. To prevent data loss, at 100% storage utilization, additional storage is automatically added, and additional storage will be invoiced.

Security & Safeguards

- AVOLVE OAS AND PROJECTDOX ARE INSTALLED ON MS AZURE SYSTEMS

- MSFT Azure Data Centers are SOC 1-3, Tier 203, SAE 18 compliant
- MSFT Azure Commercial Cloud (also called Azure Public) is FedRAMP High and NIST 800-171 compliant. (https://docs.microsoft.com/en-us/azure/azure-government/compliance/azure-services-in-fedramp-auditscope).

Azure public services by audit scope

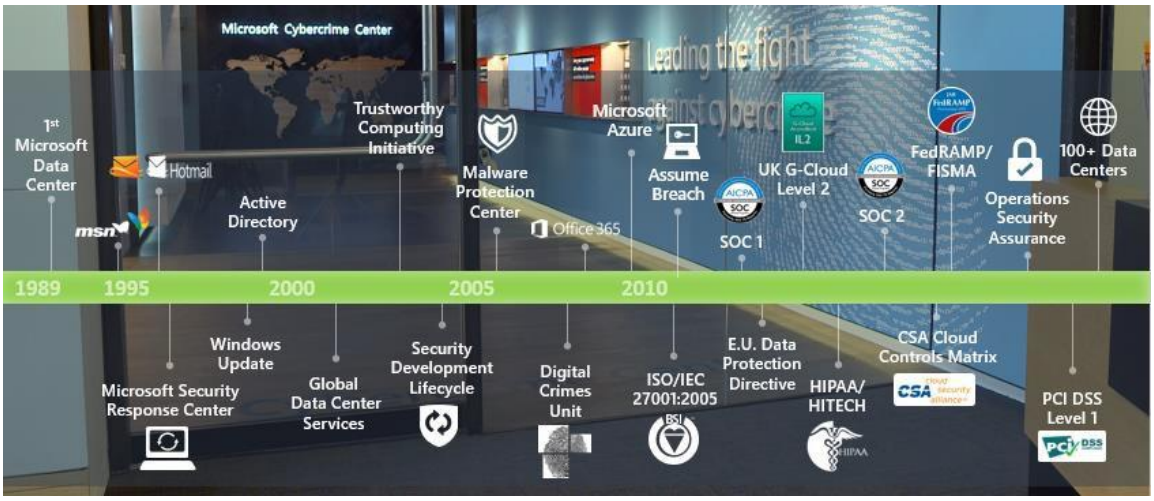
| Last Updated: May 2021 |

Azure Service	DoD CC SRG IL 2	FedRAMP Moderate	FedRAMP High
AI Builder	✔	✔	✔
API Management	✔	✔	✔
Application Change Analysis	✔	✔	✔
Application Gateway	✔	✔	✔
Automation	✔	✔	✔
Azure Active Directory (Free and Basic)	✔	✔	✔
Azure Active Directory (Premium P1 + P2)	✔	✔	✔
Azure Active Directory B2C	✔	✔	✔
Azure Active Directory Domain Services	✔	✔	✔
Azure Active Directory Provisioning Service	✔	✔	✔
Azure Advanced Threat Protection	✔	✔	✔
Azure Advisor	✔	✔	✔
Azure Analysis Services	✔	✔	✔
Azure App Configuration	✔	✔	✔
Azure API for FHIR	✔	✔	✔
Azure Arc enabled Servers	✔	✔	✔
Azure Bastion	✔	✔	✔
Azure Blueprints	✔	✔	✔

- MSFT Azure has the highest security compliance from all Cloud Service providers. To access a complete list go to: https://docs.microsoft.com/en-us/azure/compliance/.

- Layer 3 and layer 4 firewall security with 1 firewall for the load balancer, 1 firewall for the web tier subnet, 1 firewall for the app tier subnet and 1 firewall for the data tier subnet. Avolve will be adding Layer 7 WAF scheduled for summer 2021.

- Microsoft $1B+ investment in security R&D and 3,500 cybersecurity experts on MS Azure Cloud. Additional security information is available at https://azure.microsoft.com/en-us/overview/trusted-cloud/.



- All incoming and outgoing traffic goes through Azure load balancer which is protected by a Microsoft's network firewall called the Azure network security group (NSG). By default, all NSG's block incoming and outgoing traffic that are not related to Avolve software.

- Traffic is forwarded from the load balancer to the web tier subnet via network access translation (NAT). The web tier subnet has an additional NSG associated to it to filter incoming and outgoing traffic from/to the load balancer. In addition to the web tier subnet Avolve also has an application tier subnet and a data tier subnet. Each subnet has an NSG associated to it, so communication between each subnet is filtered via the NSGs.

- Avolve Production Environment Safeguard Guidelines:

  Industry best-practices for systems operational control (SOC) and the National Institute of Standards (NIST) are an integral part of the Azure infrastructure, ensuring a very high level of security and system uptime for Avolve's customers and their environments. Avolve's security and operational policies are established in order to safeguard against any unauthorized access to data and/or potential service disruption that are a constant threat in today's world of online commerce. Therefore, the following policies are enforced by Avolve:

  - Customer will have no access to the server infrastructure. Deployment and changes to Production server hardware and/or Operating System (OS) configuration in the system will be performed by Avolve and qualified partner staff only. Customers will be notified if modifications to their environments are required at any given time.
  - Custom report creation requires direct access to the Production database. For this reason, Avolve will only support access to a Test environment where the Production tables for reports can be exported.
  - Apart from machine-to-machine (M2M) VPN tunnels required for third-party software integration, no user account-based VPN access will be granted to Avolve Production environment infrastructure or software applications.

- Data Center Physical Location Security:

  Avolve SaaS products are hosted on Microsoft Azure. Each Azure geography contains one or more regions and meets specific data residency and compliance requirements. This lets you keep your business-critical data and apps nearby on fault-tolerant, high-capacity networking infrastructure. There are 8 US regions. The physical design and operating characteristics of the datacenter is confidential for security reasons. Each region consists of more than one datacenter strategically located to optimize customer's systems. The regions location will depend on the type of service required. A region is a set of datacenters that is interconnected via a massive and resilient network. The network includes content distribution, load balancing, redundancy, and data-link layer encryption by default for all Azure traffic within a region or travelling between regions. With more global regions than any other cloud provider, Azure gives the customer the flexibility to deploy applications where you need them.

  Microsoft takes a layered approach to physical security, to reduce the risk of unauthorized users gaining physical access to data and the datacenter resources. Datacenters managed by Microsoft have extensive layers of protection: access approval at the facility's perimeter, at the building's perimeter, inside the building, and on the datacenter floor. Layers of physical security are:

  - Access request and approval
  - Facility's perimeter
  - Building entrance
  - Inside the building
  - Datacenter floor

  Read more information at https://docs.microsoft.com/en-us/azure/security/fundamentals/physical-security.

- Avolve Security Policies and Procedures:

Avolve has been in the process of moving towards full NIST 800-53 compliance by Q3/Q4 2021. The process started in late 2019 with a full security audit by a 3rd party security company, which resulted to a NIST compliance plan. In 2020, we commenced implementing these NIST policies and guidelines with over 900 controls. While many of these policies have been implemented, there are still several procedures that are evolving with newer industry security practices. The policies include:

- Access Control
- Assessment and Authorization
- Audit and Accountability
- Awareness and Training
- Configuration Management
- Contingency Planning
- Identification and Authentication
- Incident Management
- Information Management
- Media Protection
- Personnel Security
- Physical and Environmental
- Planning
- Risk Categorization
- Risk Management
- Software Usage
- System and Communication Protection
- System and Services Acquisition
- System Maintenance
- Information Integrity

Avolve NIST policies and procedures include quarterly employee cybersecurity training, capturing system access logs, security monitoring and limited access to customer production systems.

- Vulnerability and Penetration Tests:

  Vulnerability scans are run quarterly, and penetration testing are run annually. The vulnerability/penetration test tool that Avolve uses monitors against the OWASP top ten recognized standards - https://owasp.org/www-project-top-ten/

  They include:
  - Suspicious input transformation
  - SMTP header injection
  - Serialized object in HTTP message
  - Cross-site scription (DOM-based)
  - XML external entity injection
  - External service interaction (HTTP)
  - Web cache poisoning
  - Server-side template injection
  - SQL injection
  - OS command injection

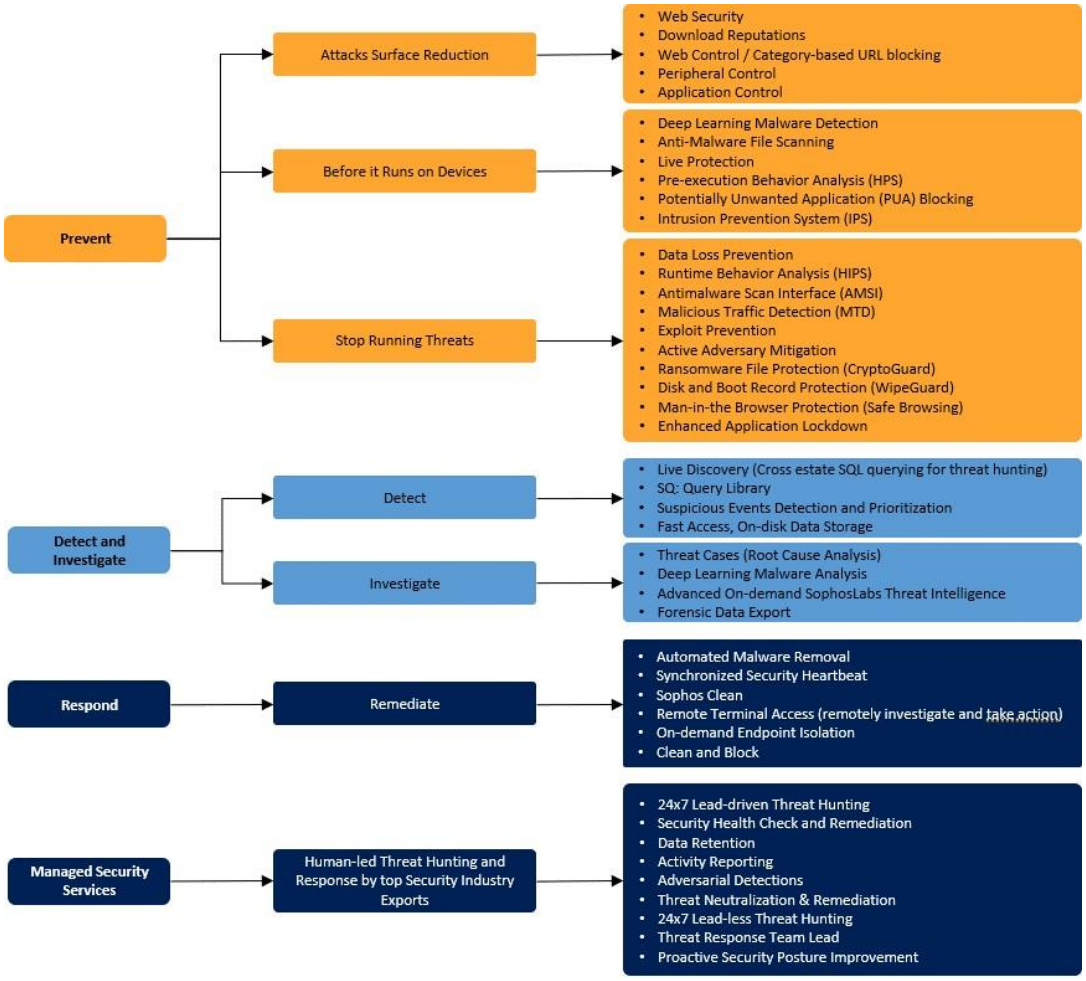
  Based on NIST SP 800-53 compliance policy, we address priority issues based on the following guidelines:
  - Critical - Within 1 month
  - High - Within 1 quarter
  - Medium - Within 1 year
  - Low - To be addressed in future releases
- Avolve SaaS CyberSecurity Capabilities:

Avolve SaaS includes the following security detection and monitoring services:

- Azure Defender Security
- Sophos Central with Server Intercept X Advanced detection and investigation with on-demand endpoint isolation, automated malware removal and clean & block
- Sophos MTR threat hunts, detection, case investigation, and incident immediate response
- LogicMonitor monitoring and security
- N-Central monitoring

Security breaches will undergo root-cause analysis by the Sophos MTR team, which will be reviewed by the Avolve Security Committee prior to submission of an Incident Report. Depending on the level of security breach and system affected, there may be additional information preceding the initial Incident Report.

Avolve SaaS Sample List of Detection, Investigation, Threat Hunts and Remediation CyberSecurity Controls.



Managed Services Operations

Avolve ensures high system availability and is backed by rock solid infrastructure and service level guarantees. Your Avolve ePlan Life Cycle licensed software is hosted in a secure, state of the art data center, and most importantly the application is expertly managed by Avolve. Meticulous attention has been given to security, backup, system redundancy and failover. Your Avolve ePlan Life Cycle application environment is monitored 24-7 for optimum health and security. And if an issue arises, our experts have immediate and direct access to your servers and software for quick diagnosis and resolution. Our comprehensive, Managed Services matrix details what you can expect from the Avolve:

24x7 Support and Monitoring for SaaS Customers	US Mountain Time Zone				
	8am-5pm	5pm-8pm	8pm-6am	6am-8am	Scheduled
Hardware and OS/Virtual System Monitoring & Support					
Server and network resources (i.e., CPU, RAM, Storage, and bandwidth) monitored with automated alerts for resource threshold, server failure, internet and WAN connectivity. Alerts will not be able to monitor issues that occur within less than 1 second failure. Those issues are often discovered during application-level (i.e., OAS and ProjectDox) connectivity issues. • Monitoring Data Points: ○ Up/Down Status ○ Network Interface Errors ○ CPU Warning ○ Memory Warning ○ Memory Critical ○ CPU Critical ○ Storage Warning ○ Partition Warning ○ Partition Critical ○ Database Warning ○ Database Down ○ SSL warning ○ SSL expiration ○ Webserver Alerts ○ DNS	x	x	x	x	

24x7 Support and Monitoring for SaaS Customers	US Mountain Time Zone				
	8am-5pm	5pm-8pm	8pm-6am	6am-8am	Scheduled
• Custom designed Outage and Alert Plan - adds, changes, & modifications (add user, update firmware, modification, network configuration) • Scheduled Hardware Audits					
• OS and VMWare proactive management. This includes monitoring of any system level failure caused by OS and VMWare patches, viruses, or other issues • Permission Control (group changes, file/folder permissions, Windows, or Linux) • Optimize backend	x	x	x	x	
• Log File analysis • Best-practices recommendations • Other services as requested • Regular reporting based on customer preference • VLAN creation/modification					x
• Cyber Security monitoring and automated alerts. • Regular anti-virus scan and anti-virus removal • Database Security	x	x	x	x	
• Scheduled data recovery, OS & VMware patches and anyhardware replacements • Critical OS patches and updates					x
• Backup automated services	x	x	x	x	
• 24x7 Infrastructure Support calls	x	x	x	x	
Application (OAS, ProjectDox, PlansAnywhere) Technical Support through ticket submissions					
• Application Specific Monitoring o Monitor Web Server Connectivity o Monitor Web Site Availability o Monitor Web Site Page Responsiveness o Monitor Application Specific Services o Minimalizes Support Issues	x	x	x	x	
• Application Performance Reviews	x				x
• Database Performance Reviews					
• Application Administration Assistance	x		x		
• Scheduled Reports	x				
• System health checks					x
• Performance tuning • ProjectDox DB Tuning and re-indexing (periodic • ProjectDox configuration tuning and adjustments based on any progressive performance growth requirements • Routine cleanup of the DLcache folder • Restart of ProjectDox services and/or Servers during support or patches					x
• Online Support Tickets: Responding to application issues reported	x		x		
• Software minor patch updates for Support related issues					x

ProjectDox® Pricing Agreement

24x7 Support and Monitoring for SaaS Customers	US Mountain Time Zone				
	8am-5pm	5pm-8pm	8pm-6am	6am-8am	Scheduled
• Software resolution to fix a technical reported issue					x
• Application support for system down issues for Standard Support customers until problem is resolved or a work around has been identified	x	x	x	x	x

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the dates set forth below.

Avolve Software Corporation

By: _____

Name: Jay Mayne

Title: Chief Financial Officer, VP Operations

Date: _____

CITY OF REDLANDS

By: _____

Name: Paul T. Barich

Title: Mayor

Date: _____

ATTEST:

_____

Jeanne Donaldson, City Clerk

City Council Meeting **L. 6.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Consideration of the second amendment to the professional services agreement with Parsons Water & Infrastructure, Inc. to engineer the Wastewater Treatment Plant Improvement Project Phase 2, an additional appropriation of $404,528, and determination that approval of the Amendment is exempt from environmental review pursuant to Section 15061(b)(3) of the State's guidelines implementing the California Environmental Quality Act (Municipal Utilities and Engineering Director Harris)

MOTION(S):

If City Council determines the staff recommendation is appropriate, the following motions are provided:

1. I move that City Council determine approval of the Second Amendment to the Professional Services Agreement with Parsons Water & Infrastructure, Inc. to engineer the Wastewater Treatment Plant Improvement Project Phase 2 is exempt from environmental review pursuant to Section 15061(b)(3) of the State's guidelines implementing the California Environmental Quality Act; and

2. I move that City Council approve the additional appropriation of $404,528 from the Wastewater Fund; and

3. I move that City Council approve the Second Amendment to the Professional Services Agreement with Parsons Water & Infrastructure, Inc.

RECOMMENDATION:

Staff recommends that City Council determine approval of the Second Amendment to the Professional Services Agreement with Parsons Water & Infrastructure, Inc. to engineer the Wastewater Treatment Plant Improvement Project Phase 2 is exempt from environmental review pursuant to Section 15061(b)(3) of the State's guidelines implementing the California Environmental

Quality Act.

Staff further recommends City Council approve the additional appropriation of $404,528 from the Wastewater Fund.

Staff further recommends City Council approve the Second Amendment to the Professional Services Agreement with Parsons Water & Infrastructure, Inc. to engineer the Wastewater Treatment Plant Improvement Project Phase 2.

DISCUSSION:

The City of Redlands has owned and operated a wastewater treatment plant (WWTP) since 1962. The WWTP, located along the Santa Ana River in the northwest part of the City, was expanded and upgraded in 1972, 1988, and 2004. These improvements were prompted by regulatory requirements and population growth. In 2004, the ZENON membrane bioreactor (MBR) filtration and disinfection process was constructed and installed, increasing the plant's operating capacity to 9.5 million gallons a day (MGD). This allowed the plant to operate with two parallel treatment systems, an MBR treatment process with the capability to produce up to 6.0 MGD of recycled water, and a conventional process with a capacity of 3.5 MGD. The majority of recycled water is delivered to Mountain View Power Plant and is utilized for cooling towers and local irrigation, while the conventional process discharges treated effluent to City-owned infiltration ponds for groundwater recharge.

In early 2018, City staff initiated efforts to identify critical WWTP needs. On March 5, 2019, City Council approved a Professional Services Agreement with Parsons Water & Infrastructure, Inc. (Parsons) to conduct a field assessment, implementation plan, and engineering design services to improve critical WWTP components. During the course of their field assessment, Parsons identified high-potential failures at the WWTP requiring immediate improvement. This resulted in Parsons revising its original plan for rehabilitating the WWTP to a two-phase approach. Phase 1 of the project is complete and installed the following:

- MBRs and associated facilities;
- Fine screens and associated equipment: Removes objects to prevent damage to the newly installed MBR membranes;
- Ejector priming system upgrades: Removes air from the permeate vessel to prevent air locking of pumps;
- Scour Blowers and associated equipment: Create air scouring, which provides premium efficiency and cost savings to the City. The blowers operate on a 24-hour basis, producing scour air that backwash the filter media;
- Digester boilers and heat exchangers: Maintains the proper temperature for the bacteria to decompose sewage sludge and produce digester gas;
- Gas conditioning system: Cleans and conditions the gas to burn cleaner in

the boilers to meet air quality regulations.

Upon completion of WWTP Phase 1 assessment and design, Parsons continued engineering Phase 2 of the Project which included the following tasks:

- Conduct additional facility condition assessment and evaluations;
- Site investigations;
- Environmental determination;
- Engineering design services;
- Project management.

The scope of work was developed cooperatively with staff . During the Project, it was determined that the following additional engineering tasks were necessary:

- Condition assessment update for Digesters 1 and 2;
- Phase 1B construction support engineering services;
- Additional surveying to locate buried utilities discovered during construction;
- Expanded geotechnical investigation;
- Process and instrumentation diagram (P&ID) drawings;
- Blower building seismic retrofit;
- Expanded electrical system engineering.

The current Agreement with Parsons will expire on December 31, 2022. Staff recommends extending the Agreement term by one (1) year to December 31, 2023 and increasing the professional services fee by $404,528. This increases the existing agreement fee from $6,374,868 to $6,779,396, an increase of approximately six percent (6%).

Approval of the Second Amendment to the Agreement is exempt from environmental review pursuant to section 15061(b)(3) of the state's guidelines implementing the California Environmental Quality Act because the activities will not result in a direct or reasonably foreseeable indirect physical change in the environment.

ALTERNATIVES:

Council may deny the staff recommendation and provide alternative direction.

STRATEGIC PLAN:

Priority B: Public Health and Safety
Strategic Objective 1. Complete Wastewater Plant Phase 2 Project Construction.

SUBMITTED BY:
John R. Harris, Municipal Utilities and Engineering Director

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager
Danielle Garcia, Management Services/Finance Director

PREPARED BY:
Goutam K. Dobey, City Engineer

Fiscal Impact

Fiscal Year:	FY 22/23
Appropriation Required Y/N:	Yes
Amount:	$404,528
Budgeted Y/N:	No
Account No.:	521910

Discussion:

The expanded scope of work requires an additional appropriation of $404,528 from the Wastewater Fund. The current Wastewater Fund reserve for Treatment Plant Capital is approximately $747,291. Staff recommends appropriating $404,528 from this fund, which will reduce the reserve balance to approximately $342,763.

Attachments

A. Second Amendment to Parsons Agreement
B. First Amendment Parsons Agreement (Reference only)
C. Executed Agreement (Reference only)
D. Additional Appropriation

SECOND AMENDMENT TO AGREEMENT TO PERFORM PROFESSIONAL SERVICES

This second amendment ("Second Amendment") to the agreement for the provision of professional engineering services to complete wastewater treatment plant design dated March 5, 2019 ("Agreement"), by and between the City of Redlands, a municipal corporation ("City"), and Parsons Water & Infrastructure, Inc., ("Consultant"), is made and entered into this 15th day of November 2022.

RECITALS

WHEREAS, it is the desire of the City and Consultant to amend Article 2.1 of their existing Agreement, specifically described in Exhibit "A," "Scope of Services" to include "Amended Scope of Services," which is attached hereto by reference, and

WHEREAS, it is the desire of the City and Consultant to amend Article 4.1 of their existing Agreement, specifically described in Exhibit "B," "Project Schedule" to include "Amended Project Schedule," which is attached hereto by reference, and

WHEREAS, it is the desire of the City and Consultant to amend Article 4.2 of their existing Agreement to extend contract until December 31, 2023, and

WHEREAS, it is the desire of the City and Consultant to amend Article 5.1 of their existing Agreement to increase Consultant's present total compensation of six million three hundred seventy four thousand eight hundred sixty eight dollars ($6,374,868) to the amount of six million seven hundred seventy nine thousand three hundred ninety six dollars ($6,779,396).

NOW, THEREFORE, City and Consultant agree as follows:

AGREEMENT

Section 1. The scope of work performed by Consultant pursuant to Exhibit "A" of the Agreement, entitled "Scope of Services," is hereby amended by the attached to include the work that is identified in Exhibit "A," "Amended Scope of Services," which is attached hereto and incorporated herein by this reference.

Section 2. The project schedule set forth in Exhibit "B" of the Agreement, entitled "Project Schedule," is hereby amended by the attached to extend contract duration indicated in Exhibit "B," "Amended Project Schedule," which is attached hereto and incorporated herein by this reference.

Section 3. Subsection 4.2 of Article 4 of the Agreement, titled "Performance of Services" is hereby amended to read as follows:

"4.2 The term of this Agreement shall commence on its Effective Date and shall terminate on December 31, 2023, unless terminated earlier as provided herein."

Section 4. Subsection 5.1 of Article 5 of the Agreement, titled “Payments to Consultant," is hereby amended to read as follows:

“5.1 The total compensation for Consultant’s performance of the Services shall not exceed the amount of six million seven hundred seventy-nine thousand three hundred ninety-six dollars ($6,779,396). City shall pay Consultant on a time and materials basis up to the not to exceed amount in accordance with Exhibit "C" entitled "Amended Cost Proposal,” which is attached hereto and incorporated herein by this reference.”

Section 5. All other provisions of the Agreement shall remain unchanged by this Second Amendment and in effect.

IN WITNESS WHEREOF, the parties have executed this Second Amendment, to be effective as of November 15, 2022.

CITY OF REDLANDS

By: _____
Paul T. Barich, Mayor

PARSONS WATER & INFRASTRUCTURE, INC.

By: _____
Satish Kamath, Vice President

ATTEST:

_____
Jeanne Donaldson, City Clerk

EXHIBIT "A"
AMENDED SCOPE OF SERVICE

The City of Redlands (City) owns and operates a WWTP with a rated treatment capacity of 9.5 mgd annual average flow. Approximately 6 mgd of that capacity is in an MBR system; the remaining 3.5 mgd is in a conventional activated sludge process (ASP). Of the current 5.5 mgd annual average flow received at the WWTP, about 3.5 mgd is treated through the MBR system, and the rest is treated through ASP. Considering the 0.8% percent per year population growth rate per the City of Redlands General Plan 2035, the projected flows by 2030 (the current planning horizon) are expected to be well below the rated treatment capacity of 9.5 mgd (Figure 1).

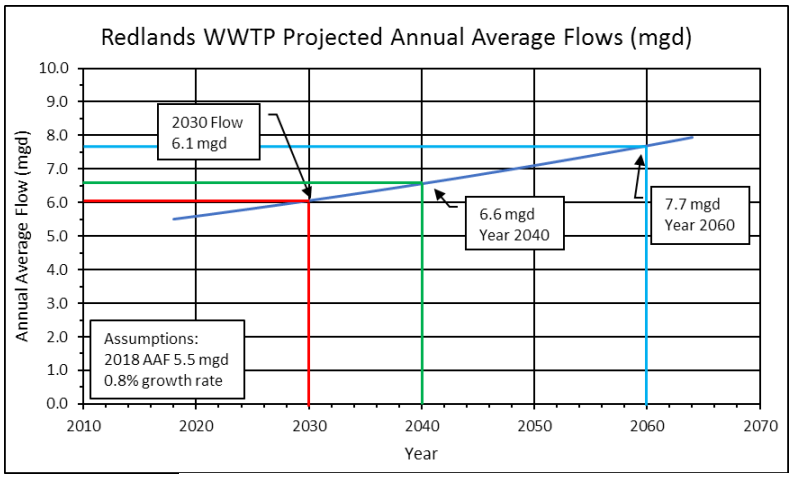


FIGURE 1. REDLANDS WWTP PROJECTED ANNUAL AVERAGE FLOWS

Scope of Services

The scope of work described in this document includes work that was completed as part of the Phase 1 project, as well as summarizes tasks and associated deliverables for the Phase 2 project.

The implementation of the modified and negotiated scope of work presented herein will:

- Maximize return on investment
- Provides higher level of reliability and redundancy
- Simplify operation by operating one state-of-the-art system (MBR) for the rated 9.5 mgd capacity
- Defer proposed year 2030 upgrades for several years, meaning significant capital expenses savings in near future
- Provide higher operational flexibility
- Eliminate permit noncompliance issues by producing high quality recycled water that complies with permit requirements at all times and is suitable for multiple recycled water uses
- Bring significant energy savings

TASK 1- CONDUCT FACILITY CONDITION ASSESSMENT

Phase 1

1.1 Gather and Review Existing Information and Meet with the O&M Staff

The Parsons team will review existing records regarding the facilities, including available record drawings, reports, O&M manuals, geotechnical reports, permits, 2 years of monthly reports to the Regional Board, and operational data. A day-long site visit and meeting/workshop with the City's O&M staff will be arranged to discuss and gather staff's knowledge of the conditions and current operations of facilities and any undocumented modifications or additions.

1.2 Perform Comprehensive Facility Condition Assessment

Parsons performed a visual condition assessment of the existing facilities as listed below, compared actual conditions to available record documents, marked up record documents to reflect actual conditions, and provided an opinion on the facility's physical condition, operational safety, reliability, and permit and code compliance to operate the WWTP at its design capacity of 9.5 mgd. We determined equipment age or year installed, estimated useful life, general rating of condition, and notation of significant deterioration/wear. The assessment included the subtasks described in the following subsections. In cases where multiple similar process units exist (e.g., primary clarifiers, secondary clarifiers) and one or more of the units is drained by the City at the time of inspection, the drained unit(s)and inner condition of the other units based on the assessment were inspected.

Facilities included in the condition assessment:

1. *Headworks*
2. *Primary clarifiers*
3. *Primary sludge pump station*
4. *Peak storage ponds and pump station*
5. *Aeration basins and blower building*
6. *Effluent pump station*
7. *MBR system*
8. *Recycled water pump station*
9. *Chlorine Contact System*
10. *RAS and WAS pump stations*
11. *Dissolved air flotation thickeners (DAFT)*
12. *Primary and secondary digesters*
13. *Dewatering facility*
14. *Solar photovoltaic array*
15. *Cogeneration Facility*

Electronic records were created to record the information for each piece of equipment, structure, and control panel evaluated.

The condition assessment consisted of four documents: Technical Memorandum 1 for Subtask 1.2.1 (TM-1), TM-2 for Subtask 1.2.8, and the Condition Assessment Report for Subtasks 1.2.2 through 1.2.7 and 1.2.9.

1.2.1 Assessment of Key Treatment Processes Performance and Capacities

Parsons' team reviewed the design criteria of key unit processes and evaluated their respective capacities under the current and design loading and flow conditions. Parsons developed a realistic capacity flow chart, compared with the permitted capacity and made recommendations for improvements. Environmental Protection Agency (EPA) redundancy and reliability requirements, as well as energy and operational efficiency, were considered to evaluate effective treatment capacity. A technical memorandum (TM-1) summarizing the analysis, key findings and recommendations with photos and calculations was submitted...

Understanding that the existing chlorination system is rated for 6.6 mgd capacity with CT of 450 mg/L-min, several agencies are working to convince Division of Drinking Water (DDW) for permitting systems with lower CT, even as low as 30 mg/L-min. The scope of work includes condition assessment of existing chlorination system for rated 6.6 mgd capacity.

1.2.2 Mechanical Equipment Condition Assessment

Parsons' team performed condition assessment of process/mechanical equipment for the aforementioned facilities. Assessment included visual observations and assessment of leakage or corrosion, disabled or inoperable equipment, identified irregular noise/vibration, remaining useful life, availability and accessibility of spare parts, materials of construction, etc. Parsons also collected relevant nameplate data and document key findings with digital photographs.

1.2.3 Major Concrete Structures Condition Assessment

Parsons' team performed structural condition assessment for the aforementioned facilities. The structural condition assessment included visual examination of the aforementioned facilities. Parsons made recommendations for more advanced testing such as non-destructive testing (NDT) for certain vulnerable facilities.

1.2.4 Civil Structures Condition Assessment

Parsons' team performed visual condition assessment of civil structures including sidewalks, paving and grading, drain structures, and other structures. We confirmed structures shown on the record drawings (e.g., catch basins, outlets, overflows) to determine effectiveness of current stormwater management practices.

<u>Assumption</u>: neither drainage modifications nor a drainage plan will be required.

1.2.5 Above Ground Pipelines Condition Assessment

The condition assessment of aboveground pipelines included materials of construction and condition of process piping. Parsons' team conducted visual assessment of above ground piping throughout the WWTP including coating evaluation and condition of exposed metals.

Recommendations were made for ultrasonic thickness (UT) measurement on accessible metallic components to determine the existing thickness.

1.2.6 Underground Pipelines Condition Assessment and Routing

Parsons' team identified and located key underground process piping (greater than 6-inch diameter) and utilities (gas, water, electrical) at the WWTP site. Parsons team reviewed existing record drawings to identify and locate process piping and utilities. This information was used as the baseline for conducting required ground survey to locate and identify key above-ground features and their ground surface elevations. The work generally conformed to ASCE Standard 38 Guidelines (Quality Level C and/or D) for the collection and depiction of existing subsurface utility data.

1.2.7 Electrical Equipment and Power Supply Condition Assessment

Parsons' team led by Reconducted a visual condition assessment of electrical and power supply equipment, including switchgear, MCCs, significant panels, standby systems, power drops, transformers and distribution system(s), circuit breakers, manholes and pull boxes, conduits and feeders, duct banks, and interface with the solar power system. The electrical condition assessment included checking for corrosion damage, problems related to moisture in conduits and panels, dust, rodents and code compliance. Open accessible manholes with the help of City staff were opened and cable and conduit via pole cameras were visually inspected without entering inside. This was used as a basis to screen underground electrical cable and conduits and identify any areas that need more detailed investigation. As-built sketches of conduit configuration, sizes, and fill were provided. The visual condition assessment was documented with notes and photos, opinion of useful component life and impact on the WWTP operation, energy efficiency, etc.

<u>Assumptions</u>:

- Visual condition assessment of electrical gear will require shutdown by City staff to open panels and MCCs.
- Parsons will provide one man with fall protection and confined space entry training to inspect manholes.
- The City will provide a confined space entry team and necessary equipment, as needed, for opening and inspecting manholes.

1.2.8 Energy Consumption and Efficiency Assessment

Parsons identified critical process and non-process loads across the WWTP and conducted a site investigation to gather key information such as name plate data, start-up current/voltage etc. The data gathered from the field and record drawings was analyzed and compared against industry standard energy efficiency benchmarks. A technical memorandum (TM-2) summarizing the analysis, key findings and recommendations with photos and analysis was submitted.

1.2.9 Instrumentation and SCADA Condition Assessment

Parsons' team led by RCS conducted a visual condition assessment of existing instrumentation. Parsons conducted a condition assessment of the SCADA system. For each item assessed, a general rating of condition was provided based on estimated useful life, suitability for the application including any code compliance issues, accessibility and physical relationship to the process including lines of sight from controls to the equipment.

The existing SCADA system hardware and software was assessed based on useful life including identification of any system components that needed to be upgraded by virtue of their obsolescence or their functional limitations. Based on this assessment, the expansion capability of the existing SCADA system, compatibility with third party systems, completeness of SCADA HMI graphics and SCADA monitoring features such as alarms, trends, events etc. were carefully analyzed.

Phase 2

Parsons has been completing engineering services during construction for Phase 1B and condition assessment and design services for Phase 2 of the Redlands Wastewater Treatment Plant (WWTP) Improvements. Parsons is requesting funding for additional engineering services requested by the City including the following:

* Revised condition assessment for Digesters 1 and 2
* Phase 1B design services during construction
* Additional surveying for potholing
* Revised geotechnical investigation
* Drawing of Process and instrumentation diagram (P&ID) drawings for existing processes
* Blower building seismic retrofit
* Additional electrical system design
* Include miscellaneous improvements in design

1.3 Conduct Testing of Concrete at Headworks to Determine Extent of Damage and Formulate Repair

Concrete samples will be collected and tested to ascertain condition of concrete, based on which structural repair recommendations will be made. As a minimum, deteriorated concrete at beam pockets must be replaced with repair concrete such as *Sikacrete 211*.

1.4 Evaluate Key Process Pipelines

Critical process pipelines will be identified, and testing methods selected in conjunction with the City. The following critical process pipelines were identified in discussions with the City:

- 27-inch pipeline from headworks to primary clarifiers
- 36-inch pipeline from primary clarifiers to peak pond pump station
- 36-inch pipeline from peak pond pump station to peak pond pump no. 1
- 27-inch pipeline from effluent pump station to percolation ponds
- 6-inch pipeline from primary sludge pumps to digesters
- 6-inch pipeline from WAS pumps to DAF thickeners

1.5 Evaluate Condition of Digesters

Evaluate condition of digesters/digester lining for all primary and secondary digesters – Concrete box at the top of Primary Digester No. 2 has partial structural failure. A detailed structural analysis will be done to formulate and implement a structural repair plan, to provide a design solution that will mitigate the risk of further structural failure. Digester lining for all digesters will also be evaluated in detail and recommendations for improvement will be made accordingly. Digester piping, valving and related appurtenances will also be evaluated in detail. Digester mixing for all primary and secondary digesters will be evaluated, and necessary recommendations will be made.

V&A Consulting Engineers conducted the Phase 2 condition assessment investigations of the Headworks and Digester No. 3. V&A's original proposal, which was prepared prior to the start of Phase 2 services, included Digesters Nos. 1 and 2 as well.

At the onset of Phase 2 condition assessment activities, the City indicated the digesters could not be taken out of service for assessment until after construction of Digester No. 4 (currently being designed as part of Phase 2), so V&A proceeded with condition assessment of the Headworks only and provided their report. Several months later it was determined that the digesters could be made available for inspection during Phase 1B replacement of the digester boilers and heat exchangers. V&A initially was able to assess Digester No. 3 only: Due do the extended Phase 1B schedule and complications with the digester boiler replacements and gas conditioning startup, our condition assessment of Digesters 1 and 2 has yet to be completed.

V&A had originally anticipated that all condition assessment field investigations would be completed at one time; now, due to availability of digesters, ultimately there will be three distinct mobilizations spread more than 15 months apart required to complete their investigations. This is a prevailing wage project, and monthly coordination/reporting to Department of Industrial Relations is required until the project is completed/closed out, which has increased their project management costs. In addition, V&A's scope of work/fee included one condition assessment report, which they completed with the headworks condition assessment: Once the project was separated, it necessitated a second report be prepared for the digesters condition assessment.

Based on these changes, V&A has requested additional budget to complete remaining services (condition assessment of Digesters 1 and 2 and completion of a digesters condition assessment report).

1.6 Conduct a Seismic Study of Structures and Buildings

Conduct seismic evaluations of the following occupied structures:

- Administration building
- Operations control building
- Maintenance building
- Wastewater Collections Office building
- Digesters and associated buildings

- Above ground tanks including the MBRs, Aeration Basins, and the Clarifiers

Attached Exhibit E includes a memo on the proposed approach for this seismic evaluation and an inventory of buildings and structures that will be included in this analysis.

1.7 Water Quality Laboratory Expansion/Improvements

The existing Operations/Laboratory Building will require modification/expansion to accommodate future space and operational requirements. The upgraded facility will include necessary improvements–to comply with current applicable codes and standards. Parsons will develop a program of space requirements for operations personnel, lab process and material flow, operational adjacencies, and an overall facility layout. Scope of work for the modification/expansion of the lab building will include the following:

- Condition assessment of the existing Operations/Laboratory Building documenting existing lab activities, systems and equipment.
- Code of Record of Applicable Codes, Criteria and project requirements will be developed.
- Program and schematic design of the renovation and addition showing administration offices, restrooms/locker rooms, break & conference rooms as well as the reconfigured lab will be developed the required upgrades to the equipment and systems will be summarized in order to comply with current safety, building code and environmental standards.
- Conceptual drawings of the laboratory and support spaces showing new casework, cabinets, equipment, and support systems will be provided.

Parsons will prepare a Supplemental Facility Condition Assessment Report to summarize the investigations noted above and present key recommendations categorized by priority, criticality, and remaining useful life of assets. A draft report will be issued for City review and comment, comments will be addressed, and a final report will be issued.

Parsons will hold a condition assessment review workshop (refer to Subtask 5.5) to review the findings of and recommendations from the condition assessment with the City. Parsons will document all discussions and decisions made in the workshop, and enter this information into a decision log. Parsons will submit the draft report for review prior to the workshop.

Phase 2 Scope Assumptions:

- Further structural recommendations for deteriorated concrete at Headworks channels may be provided based on concrete test results; associated level of effort is not included at this time.

For inspection of buried pipelines, it is assumed that inspection will be done while the pipelines remain in service using Smartball® technology.

DELIVERABLES

TASK 1 DELIVERABLES
1.Phase 1 • TM-1 Key Processes Performance and Capacities, Draft and Final • TM-2 Energy Consumption and Efficiency Assessment, Draft and Final • Facility Condition Assessment Report: summarized field investigations per discipline per Phase 1 scope of work and presented key recommendations categorized by priority, criticality, and remaining useful life of assets. Draft and Final **2.Phase 2** • Comprehensive Facility Condition Assessment Report: will summarize field investigations per discipline per Phase 2 scope of work and present key recommendations categorized by priority, criticality, and remaining useful life of assets. Draft and Final

TASK 2 – DEVELOP MULTIPURPOSE PROJECT REPORT/IMPLEMENTATION PLAN (COMPLETED DURING PHASE 1)

Parsons developed a multipurpose Project Report including a detailed implementation plan based on findings from Task 1, Phase 1. The implementation plan includes a list of recommended improvements for operation of the WWTP at its current 9.5 mgd permitted capacity considering the criteria of treatment process efficiency, life cycle cost, redundancy, operations convenience, permitting impacts, energy efficiency initiatives, and process control.

The Project Report includes a capital improvement program (CIP) schedule and phased implementation plan to support the City's strategy for upgrade and improvement of the WWTP processes. The CIP schedule and implementation plan includes near- and long-term milestones, timeline for design, construction, start-up and training, permitting, California Environmental Quality Act (CEQA) exemption documentation, SRF loan and/or grants funding, etc.

In addition to above, the Project Report meets the Project Report requirements for the SRF loan application package.

DELIVERABLES

TASK 2 DELIVERABLES (COMPLETED DURING PHASE 1)
• Project Report/Implementation Plan, Draft and Final

TASK 3 - PROVIDE ENGINEERING DESIGN SERVICES

Basis of Design (Bid Package) Development

Phase 1

Parsons submitted design packages for the Phase 1A project in June 2020 and Phase 1B project in October 2020. The following work was completed as part of the Phase 1A and Phase 1B projects:

MBR Facility

- Installation of new membranes/eductor system for 6 mgd - Design modifications to MBR basins to hold preselected membranes in the existing basins for up to the rated average capacity of 6 mgd (6.6 mgd peak) to provide treatment capacity for Phase 1. To meet the average daily flow capacity of 6 mgd at the specified fluxes, six (6) trains of fourteen (14) cassettes each have been provided.
- Evaluation and repair of existing membrane tanks concrete.
- Installation of weirs in membrane tanks – weirs will be provided by the MBR Equipment Supplier and will be installed in each basin in advance of membrane installation in that train.
- Ensure MBR system (including air scour blowers) is incorporated into plant SCADA by modifying existing PLCs - Current ethernet communication cards may not support communication with the turbo blower CPU which will limit the integration necessary to achieve the full benefit of the turbo membrane scour blower system. MBR vendor will provide a current Allen-Bradley ControlLogix series controller and PanelView Plus 7 HMI to replace the existing obsolete controller and HMI, respectively. Additionally, an ethernet module will also be provided to isolate the turbo blowers from the larger control network to ensure no issues with multicast traffic and communication. The existing I/O modules are current models and readily available, thus not requiring replacement. A few programming changes will be coordinated with the MBR vendor to integrate these blowers into the existing system.

Scour Air Blowers

- Design upgrades for air scour blowers will include three (3) 3700-SCFM high-speed turbo blowers. These blowers are sized for the full plant capacity so that no additional equipment will be required for the future package. Parsons will coordinate with the vendor for vendor control system and ancillaries needed as well as on-site time for the vendor representative. Parsons will also coordinate programming changes that will be needed to ensure smooth integration of these blowers into the existing system.
- Evaluate any potential structural requirements for installation of air scour blowers and harmonic filters.
- Design power supply for fine screens and evaluate power feed requirements for membranes and air scour blowers to determine if existing power supply is adequate.

Fine Screens

- Installation of new fine screens - Parsons will evaluate all potential alternatives for location of the new fine screen facility and determine most feasible location for both phases. Three (3) in-tank inclined rotary drum type fine screens (2-mm perforated) each rated for 7.6 mgd flow, will be installed.
- Design civil aspects of concrete pad for fine screens structure.
- Address general site requirements including site access, site grading, pavement etc. for new fine screen facility.
- Design underground yard piping for routing pipelines to fine screens and from fine screens to aeration basins.
- Design of concrete pad and structural platform for installation of fine screens.
- Integrate fine screens with plant SCADA. Develop P&ID and control narrative for O&M manual - Parsons team will coordinate with the MBR vendor to ensure transition of the new fine screens to the existing plant SCADA. P&ID and control narratives will be developed for updating the current O&M manual. Additionally, Parsons will also coordinate the controls logic sequence chart (CLSC) and the operation sequence chart (OSC).

Digestion System Upgrades

- Design addition of new boilers for consistent heating of digesters and heat exchangers – Existing digester boilers are out of compliance and need to be replaced immediately.
- Provide digester gas conditioning – H2S and siloxane removal systems will be provided upstream of the boilers.

Phase 2

Key considerations are listed below for development of the design package and fee estimate. They include upgrade of the WWTP with a state-of-the-art 9.5 mgd MBR system and necessary improvements for reliability and redundancy.

1. Headworks
    - Parshall Flume FIT-1102 will be replaced
    - Replacement of raw sewage pumps nos. 1-3
    - Design new gas detection system and alarms for MCC building
    - Relocate air compressor in front of MCC enclosure
    - Provide new biotrickling filter odor control system
    - Provide two washer-compactors for screenings
    - Provide two washer-classifiers for grit
    - Provide SCADA interface for headworks equipment – see Section 13, Plant-wide I&C and SCADA system.
    - Replace old headworks motor control center (MCC) – see Section 14, Plant-wide electrical system.
    - Design new prefabricated building for MCC replacement

2. Primary Clarifiers and Primary Sludge Pump Station

- Replace collectors and drives for primary clarifiers nos. 1-3
- Design replacement of chain and flight mechanism for Clarifier No. 2Replace primary sludge pumps nos. 1 and 2
- Replace all equipment powered by 240V to 480V power
- Design new ferric chloride dosing pumps for flow/load proportional control
- Design of new ferric chloride storage tank
- Provide recoating of concrete ferric chloride containment area
- Provisions for adequate ventilation to primary sludge pump room (6-12 ACH)
- Design SCADA interface for primary clarifiers and sludge pumps – see Section 13, Plant-wide I&C and SCADA system.
- Replace MCC at primary sludge pump station – see Section 14, Plant-wide electrical system.
- Design new prefabricated building for MCC replacement

3. Peak Ponds and Pump Station

- Evaluate and design mixing system for the Peak Ponds such as SolarBee® solar powered floating mixing units in each pond to maintain a uniform mixture of contents in the ponds.
- Peak Pond Pump Station (PPPS) capacity/performance will be evaluated. Peak capacity with all 3 pumps operating (no standby) is 13.3 MGD. Additionally, the two oldest PPPS pumps will be replaced with new pumps.
- Design proper pedestrian access (ingress/egress) to bottom of ponds
- Update pump station control strategy – see Section 13, Plant-wide I&C and SCADA system. Add status and alarm signals to SCADA – see Section 13, Plant-wide I&C and SCADA system.
- Replace MCC in peak pond pump station – see Section 14, Plant-wide electrical system
- Design new prefabricated building for MCC replacement

4. Membrane Bioreactor (MBR) and Aeration Basins

- Expand MBR capacity to 9.5 mgd
    - Install additional membranes/cassettes
    - Design modifications to membrane basins to hold preselected membranes in the existing basins for up to 9.5 mgd annual dry weather flow (ADWF)
    - Replace permeate pumps to support larger treated flows from MBR. Modify existing backpulse pumps and permeate lines –MBR system has been sized to handle 13.3 MGD peak flow with one train offline. MBR permeate pumps will be sized to handle 13.3 MGD peak flow with 5 duty pumps (one standby pump). Existing permeate lines will be checked to ensure they are adequate for future flows. Due to higher peak flows, the existing permeate lines from membranes to permeate pumps may need to be upsized.

- Convert CAS aeration basins (3) to MBR aeration basins
    - Provide new mixed liquor recycle (MLR) pumps and mixers
    - Install/configure new baffles
    - Upgrade RAS pumps to provide additional capacity for 9.5-mgd MBR
- Replace aeration blowers - Existing aeration blowers will be replaced with high-speed Turbo blowers. In addition to this, Parsons will also evaluate and provide recommendations for bearing type (air or magnetic).
- Replace aeration diffusers for all basins and design improvements to aeration control system for energy efficiency – Parsons will investigate design solutions where aeration diffusers can be replaced or taken offline for inspection and maintenance without taking the aeration basin out of service.
- Replace piping for aeration blowers on the existing CAS train
- Provide new mud valves for aeration basins
- Provide HVAC improvements to aeration basin blower building
- Design code compliance upgrades to blower building and install panic bars on doors
- Equipment pad located in the northeast corner of the aeration basins has exposed bottom of the concrete pad. Instructions will be provided in the design for the contractor to fill in the footing cavity with concrete and construct concrete curb around pad to shore the equipment pad.

5. Effluent Pump Station

- Replace effluent pump no. 3
- Provide a parallel pipeline to percolation ponds – see Section15, Site Civil.
- Provide SCADA interface for process analyzers for effluent pump station monitoring and recording – see Section 13, Plant-wide I&C and SCADA system
- Replace MCC-F and MCC-G – see Section 14, Plant-wide electrical system Design new prefabricated building for MCC replacement

6. Recycled Water Pump Station

- Replace recycled water pump no. 1

7. Impure Water Pumps

- The impure water pumps are located right below the chlorine contact tanks and provide washwater for cleaning/spraying etc. In the future, these pumps will also deliver water for fine screens cleaning. Capacity of these pumps need to be evaluated to ensure future requirements for washwater/fine screens cleaning etc. are met.
- Provide SCADA interface for impure water pumps – see Section 13, Plant-wide I&C and SCADA system

8. Supernatant Ponds

- Replace MCC-Y – see Section 14, Plant-wide electrical system Improve struvite management

    - Provide a centrate equalization tank, pumping station, and glass-lined piping to the Fine Screens.

9. Thickening System
   - Replace thickened waste activated sludge (TWAS) pumps nos. 1-4
   - Replace dissolved air floatation thickener (DAFT) recycle pump no. 1
   - Design overhaul/replacement of internal mechanism for DAFT no. 1Provide SCADA interface for DAFTs – see Section 13, Plant-wide I&C and SCADA system Replace MCC-D – see Section 14, Plant-wide electrical system
   - Design new prefabricated building for MCC replacement

10. Digestion System
    - Provide additional digestion capacity by construction of a new digester. Existing secondary digester will continue to be used as a holding tank for storing sludge, allowing the intermittent operation of dewatering centrifuges.
    - Reline existing digesters
    - Provide SCADA interface for digesters and upgrade digester feeding strategy – see Section 13, Plant-wide I&C and SCADA system

11. Dewatering System
    - Parsons will design a new silo and sludge conveyor system for transferring dewatered sludge from the centrifuges for direct loading onto sludge hauling trailers/trucks.
    - Replace dewatering sludge feed pump no. 1
    - Replace dewatering grinder no. 1
    - Replace small centrifuge to match large centrifuge capacity
    - Provide SCADA interface for centrifuges – see Section 13, Plant-wide I&C and SCADA system

12. Water Quality Laboratory – Improvements and Expansion
    - To be determined from Water Quality Lab Study

13. Plant-Wide I&C and Scada System
    - Following processes to be interfaced with plant SCADA:
        - Headworks – bar screens and grit removal equipment
        - Primary clarifiers and sludge pumps
        - Fine Screens
        - Primary and secondary digesters
        - DAF thickeners
        - Dewatering centrifuges
        - Impure Water Pumps
        - Waste Gas Flare
        - Gas Conditioning System
    - Following process areas status and alarms need to be displayed on plant SCADA:
        - Headworks – raw sewage pumps high temperature alarms

    - Peak pond pumps high temperature and seal leak alarms
    - Aeration basin mixers run and fail status
    - RAS & WAS pumps high temperature alarms and WAS pumps station level switches (LSLL/LSHH)
    - Secondary clarifiers pH analyzer
    - Effluent pumps high temperature alarms
    - Recycled water pumps high temperature alarms
    - SCADA communication health
- Upgrade to latest Allen-Bradley ControlLogix 5580 controllers with built-in Ethernet communications throughout the plant
- Convert PLC/SCADA communication network to Device Level Ring (DLR) topology
- Review and update missing calibration stickers on all instruments
- Optimize existing plant control strategies
- Update existing P&IDs for facilities being modified under the current scope of work

14. Plant-Wide Electrical System

- Replace switchboard "M" – Switchboard "M" installed in 1972 (almost 50 years ago) provides power to key process areas such as return sludge pump station, headworks, primary clarifiers, thickener building, digesters, DAF thickener, effluent pump station, maintenance building, operations building and sludge pump station. Considering that the typical useful life of a switchboard is up to 30 years, switchboard "M" has far exceeded its useful life. Failure of Switchboard "M" will cause power disruption to the majority of treatment plant process areas.
- Replace MCC-B, MCC-C, MCC-CA, MCC-D, MCC-E, MCC-F, and MCC-G and MCC-Y
    - MCC-C, MCC-D, MCC-E, MCC-F and MCC-G, installed in 1972
    - MCC-B installed prior to 1961; replace existing 240V MCC with a new, 480V MCC at a different location (outside of primary clarifier sludge pump room)
    - MCC-CA and MCC-Y installed in 1988
- The following areas are non-compliant with NFPA 820 for electrical installation and need to be changed:
    - Headworks: The 10'-0" envelopment of influent channel is classified as Class 1 Division 2 area and "too close" to the electrical building with louvers and roll-up door opening facing the influent channel. A new prefabricated enclosure for the MCC will be designed – see Section 1, Headworks.
    - Primary Clarifier Basins and Pumps: 18 inches above water surface and 10'-0" beyond wetted wall is defined as Class 1 Division 2 area per NFPA 820. Currently, electrical installations at basins and influent channels do not comply with NEC requirements. Recommendations will be provided so that NEC requirements can be met.
    - Primary Clarifier Sludge Pump Room: Sludge Pump room is below grade with MCC-B installed in the pump room. Existing room ventilation appears to

be provided by fan controlled by a timer. Area is classified as Class 1 Division 2 area with ventilation less than 6 air changes per hour. Provide continuous ventilation per NFPA 820 to reduce the hazardous classification and replace existing process equipment (240V) to match new MCC voltage (480V).

- Primary Clarifier Sludge Pump Room: Replace existing process equipment (240V) to match new MCC voltage (480 V)
- Evaluate critical process loads for standby generator and determine load shedding strategy

15. Site Civil

- Site Civil work will include demolition, grading, yard piping
- Install new 6-foot-high chain link fence (perc ponds area)
- Provide new/redundant pipelines for key critical pipelines
    - From headworks to primary clarifiers
    - From primary clarifiers to peak ponds
    - From aeration basins to membrane basins to accommodate increased flows to the MBR process
    - From effluent pump station to percolation ponds
    - Others as determined in Task 1, Condition Assessment.
- New AC pavement for locations where new pipelines will be installed

16. Landscape Architecture

Landscaping design will include the property frontage along Nevada Street, the plant entrance, the drive all the way past the Operations/Laboratory Building and employee parking to the Maintenance Building, and the areas between the entrance drive and the plant access drive north of the Chlorine Contact Tank Operations/Laboratory Building and employee parking.

- Prepare preliminary design and initial concept ideas – Initial concept ideas will be presented in blackline plan and elevations for City review. Upon receipt of initial City feedback, we will refine our exhibits in color, with 3d modeled rendering exhibits prepared for the entry monument, gate and beautification areas, informational exhibits, as well as the walkway and patio improvement areas.
- Prepare final design including demolition plans, construction plans and details, planting plans and irrigation plans – Final design will entail the following:
    - Demolition Plans
    - Construction Plans & Details
    - Planting Plans
    - Irrigation Plans

17. Optional Items

- Develop demolition drawings for decommissioned fine screens equipment on the MBR deck.

- Witnessing of factory acceptance testing of major equipment such as aeration blowers, aeration diffusers, new centrifuge etc.
- Repair supernatant pond lining

3.1 Provide SRF Loan and Grant Applications Support

Phase 1

Parsons provided technical support for State Revolving Fund (SRF) Loans through State Water Resources Control Board (SWRCB), as requested by the City.

The Project Report required for SRF loan was developed under Task 2 – Multipurpose Project Report/Implementation Plan.

Phase 2

Provide technical support for SRF loan and available grants/incentives, on an as-needed basis up to the amount shown in the fee estimate.

3.2 CEQA/EIR and NEPA Related Activities

Phase 1

The proposed design project is subject to CEQA requirements. The project was evaluated to determine if it qualifies for an exemption from CEQA. Based on the Basis of Design (Bid Package) proposed, very limited new construction will be included in the project. Therefore, earth work will be minimal, which we believed will make the project qualify for a CEQA exemption.

In order to pursue an SRF loan or grant from the State Water Resources Control Board, in addition to filing for CEQA exemption, the project must comply with certain National Environmental Policy Act (NEPA) requirements. Parsons conducted and incorporated the results of the following three technical studies required per NEPA, which were provided to the City to include as exhibits to the SRF application:

- EPA Clean Air Act Conformity Analysis
- Biological Resources Evaluation (threatened and endangered species, wetlands)
- Archaeological and historic resources subject to National Historic Preservation Act Section 106 requirements.

During the course of the biological investigation, our team noted that the percolation ponds east of the main wastewater treatment plant and Alabama Street are in a sensitive habitat area for some small mammals. Burrows were found around the percolation ponds. This required small mammal trapping activities to be conducted to confirm the presence of sensitive species including:

- The San Bernardino kangaroo rat (SBKR)
- LA pocket mouse
- Northwestern San Diego pocket mouse

Trapping activities were conducted, and SBKR were confirmed on the site. Our environmental subconsultant also spotted red-tailed hawks in the area. The presence of SBKR and red-tailed hawks required the CEQA-Plus process to switch from completing a Conditional Exemption (CE) to preparing an Initial Study/Mitigated Negative Declaration (IS/MND).

Parsons conducted and incorporated the results of the following technical studies required per NEPA into a draft Initial Study/Mitigated Negative Declaration (IS/MND); these studies were provided to the City for use as exhibits to the SRF application.

Phase 2

The draft IS/MND was completed but did not go through the environmental review process. Parsons will review and revise the draft IS/MND to reflect the Phase 2 scope of work. At this time the following modifications are anticipated:

1. Addition of pipeline between the effluent pump station and the percolation ponds.
2. Deletion of percolation ponds improvements from the project.

Proposed project changes will require amendments to the following technical studies:

- Biological Resources Evaluation (threatened and endangered species, wetlands)
- Archaeological and historic resources subject to National Historic Preservation Act Section 106 requirements

Upon revision of the IS/MND, Parsons will submit the document for City review and approval. The IS/MND will then be circulated for a 30-day public review period (along with publication of the Notice of Intent in the local newspaper), and responses to public comments on the document will be prepared. As part of this task, Parsons will attend one Planning Commission and/or City Council meeting and file the Notice of Completion with the County Clerk.

DELIVERABLES

TASK 3.2 DELIVERABLES
3.Phase 1 • Conditional Exemption • EPA Clean Air Act Conformity Analysis • Biological Resources Evaluation (threatened and endangered species, wetlands) • Archaeological and historic resources subject to National Historic Preservation Act Section 106 requirements. • Small Mammal Trapping Report • Draft Initial Study/Mitigated Negative Declaration (IS/MND) **4.** **5.Phase 2** • Amendment to the Biological Resources Evaluation (threatened and endangered species, wetlands)

- Amendment to the Archaeological and historic resources subject to National Historic Preservation Act Section 106 requirements
- Revised IS/MND, Draft and Final
- Responses to public comments to the IS/MND

3.3 Conduct Utility Investigation

Phase 2

Parsons will review the existing conditions of utilities serving the WWTP, including electric, gas, water, and modem. If upgrades of certain utilities are warranted to meet the current WWTP upgrade project needs, Parsons will coordinate with such utility companies and prepare an initial request for utility information such as atlas sheets, mapping, or as-built plans, and will notify them of the need to install planned facilities. If upgrade of utilities is required, Parsons will coordinate with utility companies. Parsons will pothole up to 10 locations. Parsons will provide the appropriate USA notifications and coordinate obtaining information from utility companies. The potholing plan will be fully coordinated with and approved by the City before any field work.

Parsons initially estimated 10 potholes for the Phase 2 scope of work, and subconsultant Cbelow Subsurface Imaging estimated this effort at $65,500. Based on Phase 1B construction, Parsons is now recommending additional potholing be conducted and has identified approximately 130 locations; Cbelow estimated this effort as $145,520. The City agreed to complete the potholing with its own forces. This work is currently in progress and reallocated the Cbelow budget to other tasks.

3.4 Conduct Topographical Survey for Design

Phase 1

Parsons provided aerial and limited field topographic surveys, mapping, and utility research as required for the project design for the wastewater treatment plant site and the percolation ponds site. We established survey ground control and conducted a detailed topographic survey of the project areas required for design completion. The survey and datum were tied into the state plane coordinate system and City or County benchmarks. Additionally, existing survey data was evaluated and any additional requirements were determined. Parsons reviewed existing survey data and provided aerial and limited field topographic surveys, mapping, and utility research as required for the project design. Parsons team established survey ground control and conducted detailed topographic survey of the project areas required for design completion. The survey and datum were tied into the state plane coordinate system and City or County benchmarks.

Phase 2

Parsons' surveying subconsultant will conduct aerial and topographic surveys between the wastewater treatment plant area and the percolation ponds for purposes of adding a redundant

pipeline between the two. Parsons will coordinate surveying effort, review subconsultant deliverables and provide comments, and incorporate survey information into design documents.

Coast Surveying is surveying the potholes being completed by City forces and additional structure and infrastructure elements throughout the plant to assist our design team. Coast Surveying has estimated the cost to complete this work as $17,349; they have $3,371 remaining on their subcontract, resulting in a net increase to Coast's subcontract of $13,978.

DELIVERABLES

TASK 3.4 DELIVERABLES
6.Phase 1 • Survey for the wastewater treatment plant site and percolation ponds **7.** **8.Phase 2** • Survey for the pipeline alignment between the wastewater treatment plant site and the percolation ponds

3.5 Conduct Geotechnical Investigations

Phase 1

Parsons subcontractor drilled two (2) soil borings in the digester area and one (1) soil boring in the fine screens area at varying depths. Undisturbed ring samples of the subsurface materials were obtained and tested in a soil laboratory to evaluate their physical characteristics and engineering properties. A Preliminary Geotechnical Investigation Report was developed with recommendations.

Phase 2

Parsons' geotechnical subconsultant will conduct geotechnical investigations and prepare a geotechnical investigation report (GIR) for the proposed on-site facilities. The GIR will determine the suitability of the sites to allow for construction of new facilities such as new pipelines, AC pavements and new structures and provide design and construction recommendations for the project facilities. The GIR will include as identified and recommended by the geotechnical engineer associated with the proposed improvements:

- Necessary design and construction issues, including regional seismicity
- Site seismic parameters
- Groundwater presence and level
- Liquefaction
- Construction dewatering requirements (if applicable)
- Site preparation and earthwork, trenching, trench stability and excavation
- Shoring, bedding, backfill
- Excavatability of soils
- Suitability of excavated materials for backfill and compaction
- Anticipated settlement of foundations
- Bedding requirements

- Pavement section recommendations
- Soil bearing strength recommendations, etc.

1. Field exploration will consist of soil borings and cone penetration tests (CPT) at approximately six locations, 20 to 50 feet below ground surface. Borings will be provided at locations, intervals and depths sufficient to achieve the required information as necessary for the design.
2. Pipeline between effluent pump station and percolation ponds is anticipated to be 10 to 30 feet below grade; borings will be drilled at approximately equal spacing along the alignments of this pipeline. The borings along the pipeline alignment will be no less than one field boring for each 1,000 feet of pipeline to a depth of minimum 3 feet below the bottom of trench excavation.
3. Undisturbed ring samples of the subsurface materials will be obtained and tested in a soil laboratory to evaluate their physical characteristics and engineering properties.

Parsons will coordinate geotechnical site investigations, review geotechnical report and other subconsultant deliverables and provide comments and incorporate relevant geotechnical site information for the design of various process areas, as applicable.

The original proposal from Converse Consultants, which was prepared prior to the start of Phase 2 services, included 10 borings to a total depth of 280 feet. Parsons provided Converse the 50 Percent Design Submittal, and Structural Team discussed with Converse changes to the design concept since inception and structural design criteria needed from the geotechnical investigation. Converse's revised proposal is for 16 borings to a total depth of 325 feet. Additionally, Converse is now encountering elevated fuel and equipment rental costs. Overall, Converse is requesting an additional $21,959 for geotechnical engineering services.

DELIVERABLES

TASK 3.5 DELIVERABLES
9.Phase 1 • Geotechnical Investigation Report **10.** **11.Phase 2** • Geotechnical Investigation Report

3.6 Prepare Preliminary Report

Phase 2

The following technical memoranda will be prepared and presented to the City for consideration as they may impact the design scope for the Phase 2 project: Their accepted findings will be incorporated into the preliminary design report.

- *TM-1: Evaluate mixing capabilities of existing digesters* - –The Parsons Process team will evaluate the mixing systems of all primary and secondary digesters, and provide recommendations for necessary improvements.
- *TM-2: Investigate alternative, less expensive technologies for thickening to replace current primary DAF thickener* - Parsons will provide preliminary high-level screening of some prominent thickening technologies in order to select the two most beneficial technologies. These selected technologies will be then compared to DAF thickener through a life cycle cost analysis.
- *TM-3: Evaluate centrifuge capacity and redundancy* - Parsons will evaluate the existing dewatering equipment capacity and redundancy, using the design solids loads, and will recommend the required upgrades.
- *TM-4: Evaluate re-design of the dewatered sludge cake loading station and conveyance of dewatered sludge* - Parsons will evaluate the loading station based on the new solids truck dimensions and access requirements. Based on the results of evaluation, Parsons will provide the City recommended modifications. Additionally, various methods for conveying dewatered sludge onto the sludge hauling trucks/trailers will also be evaluated and pros/cons of each method will be summarized in this memo.
- *TM-5: Evaluate provisions for phosphorus removal* – Centrate is currently sent to the degas (supernatant) ponds, from where it is pumped to both CAS and MBR trains. FeCl3 is added to the MBR side which helps mitigate PO4 levels to meet recycled water requirements. In the future scenario of returning the centrate downstream of peak ponds, it will be important to ensure phosphorus limits are in compliance with regulatory requirements. Since centrate is high in phosphorus, there will be higher phosphorus concentrations in the liquid stream, impacting effluent limits for recycled water. Parsons will evaluate the various alternatives for potential sidestream treatment technologies.
- *TM-6: Evaluate the effect of landfill leachate on the wastewater treatment plant processes, digested solids for beneficial reuse, recycled water, and alternative treatment of leachate prior to entering the wastewater stream if needed* - A small continuous flow of landfill leachate is being accepted at the treatment plant (point of injection is downstream of grit chambers). The State Water board has asked for effects of leachate on the various treatment processes, impacts on recycled water and beneficial reuse of biosolids. A feasibility study/evaluation will be conducted by Parsons to analyze impacts of constituents including PFAS, metals and TDS on both liquids and solids treatment processes, as well as to develop possible treatment alternatives. Coordination will also be conducted with the landfill to explore the option of treating the leachate before it enters the treatment plant.
- *TM-7: Evaluate the feasibility of designing and installing recycled water storage tanks (reservoirs) to meet growing demand for recycled water* – Parsons will evaluate conceptual system configuration, storage tank sizing and location.
- *TM-8: Evaluate RAS/WAS pumps* – Evaluate if existing recirculation/sludge wasting pumps are adequate for converted aeration basins, to handle higher MLSS concentrations of 8,000 mg/L. Addition of pumps may be required to handle larger treated flows from MBR. Return flow of 3Q can be obtained with the existing pumps. However, for

reduced lifecycle costs, Suez has requested a return flow of 4Q, which will require additional pumping capacity. Parsons will evaluate lifecycle costs of additional pumping, compare it with the reduced lifecycle costs of MBR system, and provide necessary recommendations.

Draft technical memoranda will be presented to the City for review and comment. Comments will be incorporated in the final technical memoranda for inclusion in the preliminary design report.

Once all comments are received regarding the draft technical memoranda, Parsons will prepare a Preliminary Design Report (PDR) for the proposed improvements. The submittal will include the following:

- Process calculations
- Process diagrams and control strategy descriptions
- Hydraulic calculations
- Preliminary site layouts
- Motor list
- Single line diagrams
- Preliminary equipment selections and cut sheets
- Preliminary list of drawings
- Specification table of contents
- List of required permits, names of contact persons, telephone numbers, estimates of permit fees, probable requirements, expected processing times, schedules for application and receipt, and a plan for having the permit requirements met before project bid.
- Final Technical Memoranda Nos. 1 through 8.

The preliminary design report will be presented to the City in draft form. City comments will be incorporated in the 30% design submittal.

DELIVERABLES

TASK 3.6 DELIVERABLES
12.Phase 2 • Draft Technical Memoranda Nos. 1 through 8 • Preliminary Design Report, Draft and Final (including final technical memoranda)

3.7 Prepare Final Design/Bid Documents and Construction Support

Phase 1 Accelerated Services

3.7.1 Final Design/Bid Documents

Parsons prepared draft and final sets of plans and specifications for the Phase 1A and Phase 1B submittals. City review comments to the draft submittal were incorporated in the final submittal.

Parsons held a review workshop with the City for the draft Phase 1B package. Parsons is providing support to the City for all relevant permitting as required through the design process. Parsons provided all plans, specifications and estimates in electronic format (AutoCAD 2D, Word, Excel, etc.).

3.7.2 Bid Phase Services and Engineering Services during Construction

Bid Phase Services:

- Attended Pre-Bid meeting and site walk.
- Requests for Information (RFIs) – received and reviewed Contractor's RFIs during the Bid Phase to determine if responses are required.
- Addenda – prepare three (3) addenda to provide responses to Bid Phase RFIs.

Engineering Services during Construction: Parsons continues to provide support through construction of Phase 1B.

- Review and Approve Contractor Submittals (Shop Drawings, Cut Sheets, Manuals, Vendor Tests, Certifications, and Reports) – Catalog information, review and process submittals electronically.
    - Assumed number of anticipated submittals as twenty (20).
    - Assumed number of anticipated resubmittals as ten (10).
- Respond to Requests for Information (RFIs) – Respond to Contractor's RFIs electronically for all documentation.
    - Assume number of anticipated RFIs as twenty-five (25).
- Review of Construction Change Order Requests - Coordinate with the City to review Contractor's change order requests or develop City-initiated change order requests.
    - Assume two (2) anticipated change order requests.
- Design Modifications – Provide design modifications as needed to address RFIs and change order requests.
- Construction Visits by Design Staff. Provide up to 10 visits from design staff to review construction progress/installation of equipment provided by the City.
- Provide Field Testing and Start-up Assistance. Provide written start-up protocol and assistance with process and facilities integration upon construction.
    - Provide guidance and review of Contractor's step-by-step Shutdown/Tie-in plans.
    - Provide guidance and review of Contractor's Start-up plans.
    - Provide guidance and assistance during start-up of facilities, processes, and equipment.
- Update Existing Operations and Maintenance Manual. Provide updated operations and maintenance (O&M) manual content in PDF format to replace existing manual MBR facility content following the format of the existing (O&M) manual.
    - Content on new fine screens, air scour blowers and digester boilers, heat exchangers and gas conditioning will be included.
- Prepare Record Drawings. Prepare record drawings based on the as-built drawings and contractor-provided redline drawings.
    - As-built changes to be created in AutoCAD 2D
    - Review the record drawings with the City before finalizing.

- Submit final record drawings electronically in AutoCAD and PDF format.

As of the end of 2021, remaining Phase 1B construction phase services budget of $150,383. Through the end of June 2022, it expended to $498,161 for these services, resulting in an overage of $347,778. Phase 1B services have continued beyond the original project schedule (end date October 2022), and additional effort than originally anticipated was required to provide these services. Parsons projected an additional two months and $30,000 to complete these services.

3.7.3 Construction Management Services

- Full-time Resident Engineering services (RE) can be provided to conduct inspections throughout installation and start-up of the facility (assumed 180 days)
- Attend progress meetings during installation and start-up as needed.
- RE will provide preliminary review of submittals, RFIs, and other tasks as needed.

Phase 2 Services

3.7.4 Prepare 30% Design Submittal

Upon completion of the preliminary design, Parsons will submit a 30 percent design review package to the City. The plans and specifications will reflect all applicable past input received from the City. The submittal will include the following:

- Site plans
- Hydraulic profiles
- Structural plans for new structures
- Mechanical, HVAC and plumbing plans
- P&IDs
- Single line diagrams and preliminary network architecture diagrams
- 30% construction cost estimate

Parsons will hold a 30% design workshop (refer to Subtask 5.5), document all discussions related to design decisions made in the workshop, and enter this information into a decision log. Parsons will submit the final PDR and 30 percent design package for review prior to the workshop.

3.7.5 *Prepare* 60% Design Submittal

Upon completion of the design to the 60 percent complete level, Parsons will submit a 60 percent design review package to the City. The plans and specifications will reflect all applicable past input received from the City. The submittal will include the following:

- Site plans
- Topographic survey base map
- Property description and plans for any right-of-way acquisition
- Pothole investigation report
- Preliminary geotechnical investigation report
- Structures plans and sections

- Mechanical, HVAC and plumbing plans and sections
- P&IDs and network architecture diagrams
- Single line diagrams
- Power plans
- Construction sequencing plan
- Equipment catalog cut sheets

Parsons will hold a 60% design workshop (refer to Subtask 5.5), document all discussions related to design decisions made in the workshop, and enter this information into a decision log. Parsons will submit the 60 percent design package for review prior to the workshop.

Parsons will hold an internal constructability workshop with members of our construction team to review the design and solicit any recommendations to improve the constructability of the design. The construction team will be given the 60 percent design package to review prior to the workshop. Recommendations will be considered and implemented in the 90% design submittal as appropriate

3.7.6 Prepare 90% Design Submittal

Upon completion of the design to the 90 percent complete level, Parsons will submit a 90 percent design review package to the City. The plans and specifications will reflect all applicable past input received from the City. The submittal will include the following:

- Civil grading and paving plans, sections and details
- Civil yard piping plans, sections and details
- Structural plans, sections and details
- Mechanical, HVAC and plumbing plans, sections, schedules and details
- P&IDs, Network architecture diagrams and I&C details
- Electrical single line diagrams, plans, control schematics, MCC elevations, panel schedules, raceway and conduit schedules
- Edited City bid and front end documents
- Complete technical specifications
- Construction sequencing plan
- 90% construction cost estimate

Parsons will hold a 90% design workshop (refer to Subtask 5.5), document all discussions related to design decisions made in the workshop, and enter this information into a decision log. Parsons will submit the 90 percent design package for review prior to the workshop.

3.7.7 Prepare Final Design Submittal

Parsons will develop and submit the final submittal upon receipt of 90 percent review comments, and this will include the following:

- Design drawings and technical specifications – Plans and specifications will be fully checked and be ready to be advertised for construction bids. They will reflect all past City input and will include contractual language and designs required to implement the controlling agency permit requirements during construction.
- Final edited City bid and front end documents
- Final calculation package
- Final construction sequencing plan

Redrawing of P&IDs

Parsons scope of work for Phase 2 included updating existing P&IDs for facilities being modified under the current scope of work. We assumed that all existing P&IDs would be available in electronic format. However, the City was not able to find electronic versions of all P&IDs. Parsons spent approximately 350 hours researching systems without P&IDs and drawing the additional P&IDs required for this project.

Blower Building Seismic Retrofit

Parsons conducted a seismic evaluation of a number of structures as part of the Task 1 condition assessment activities. Upgrades were recommended for a number of structures including the Blower Building. The blowers will be replaced, and Switchboard M will be removed during Phase 2. Parsons recommended the City approve moving forward with seismic improvements to this structure. Parsons has estimated 7 new drawings and 456 total hours will be required to design these improvements.

Additional Electrical Infrastructure Design

The Parsons Electrical team presented to the City recommended electrical improvements not in the original scope of work to address code issues and old/worn equipment during two workshops in February and March 2022. The City agreed with these recommendations (below). Parsons has estimated 320 total hours will be required to design these improvements.

AREA	EQUIPMENT	IN SCOPE	NOT IN SCOPE	NOTES/RECOMMENDATIONS
Raw Sewage Pump Station/Electrical Building	MCC-C and MCC-CA	X		Replace MCCs
	Declassify building		X	Add visual and audible alarms.
Headworks	Bar Screens Control Panel		X	Relocate out of classified area.
	PLC-004		X	Relocate out of classified area.
	MCC-CB raw sewage pump VFDs	X		Replace MCC with new VFDs in a new building.
Peak Ponds Pump Station	MCC-E	X		
	MCC-EA		X	Replace
Effluent Pump Station	MCC-F	X		
	MCC-G	X		
	MCC-FA		X	Replace
	VFD #1		X	Replace all VFDs
	VFD #2		X	

	VFD #3	X		
Recycled Water Pump Station	MCC-U		X	Replace VFD #1 Connect VFD #2 Replace VFD #3
Impure Water Pumps	MCC-UA		X	Investigate/address issues with MCC/impure water pump power feed setup.
Centrate Pumps	MCC-Y	X		

Miscellaneous Design Additions

The following additional improvements have been requested by the City during execution of Phase 2 design:

- Berm improvements on west and south sides of Peak Pond No. 2
- High level switches alarmed to SCADA for 5 locations (RSPS/Headworks, PSPS1 & PSPS2, Centrate, RAS/WAS PS)

DELIVERABLES

TASK 3.7 DELIVERABLES

13.Phase 1

- Phase 1A Bid Package, Draft and Final
- Phase 1B Bid Package, Draft and Final

14.

15.Phase 2

- 30% Design Submittal
- 60% Design Submittal
- 90% Design Submittal
- Final Design Submittal

3.8 Prepare Construction Cost Estimates

Phase 1

Parsons prepared conceptual engineer's estimates of construction costs for Phase 1A and Phase 1B packages in coordination with the City.

Phase 2

Parsons will prepare engineer's estimates of construction cost at key design milestones (30%, 90%,), to be based on relevant design documents. The cost estimates will be prepared by our cost estimating group in accordance with the AACE International cost estimate classification system. All costs will be in current dollars, referenced to the current *Engineering News-Record (ENR)* Construction Cost Index (CCI), and escalated to the estimated midpoint of construction.

DELIVERABLES

TASK 3.8 DELIVERABLES
16.Phase 1 • Phase 1A Conceptual Construction Cost Estimate • Phase 1B Conceptual Construction Cost Estimate **17.** **18.Phase 2** • 30% Construction Cost Estimate • 90% Construction Cost Estimate

3.9 Prepare Title 22 Report

Phase 2

Parsons will prepare a Title 22 Report describing the processes used at the plant facilities for production of recycled water including redundancy and reliability features. The Title 22 Report will describe how recycled water meeting the Title 22 requirements will be produced at the plant and safety measures such as disposal of off-spec water in the event of equipment malfunction or process inadequacies, which may result in the production of recycled water that does not meet the Title 22 requirements. The Title 22 Report will be submitted to the State Water Resources Control Board (SWRCB) – Division of Drinking Water (DDW), and RWQCB for review and approval.

DELIVERABLES

TASK 3.9 DELIVERABLES
19. Title 22 Report, Draft and Final

TASK 3 ASSUMPTIONS

- TM-2: The smaller centrifuge will be replaced to match the capacity of the existing larger centrifuge – this assumption will be revisited depending upon the process evaluation during the preliminary design stage.
- TM-3: Level of effort estimate includes evaluation of two beneficial technologies for solids thickening. No design hours have been included for design of recommended technology.
- TM-4: A conveyor and storage silo have been included in the design – this assumption will be revisited depending upon the process evaluation during the preliminary design stage.
- TM-5: Level of effort estimate includes evaluation of phosphorus removal technologies. No design hours have been included for design of recommended phosphorus removal/ sidestream treatment technology.

- TM-6: No design hours have been included for design work related to landfill leachate treatment.
- The City will provide review comments at the 30%, 60% and 90% design stages.
- Parsons will work with all relevant permitting agencies such as California State Water Resources Control Board, South Coast Air Quality Management District etc., as required through the design process and gain final approval for the final design submittal.
- Parsons will provide plans in AutoCAD 2D and PDF formats; specifications in Word and PDF formats; and construction cost estimates in PDF format.

TASK 4 – PROJECT MANAGEMENT, COMMUNICATION AND QUALITY CONTROL

4.1 Project Management and Prepare Project Management Plan

Parsons will develop a project management plan (PMP) to serve as a roadmap for the project from facility assessment through construction and startup, identifying the sequence of activities and including reviews and progress reporting. The PMP will address the project implementation approach, staffing, organization, project recordkeeping, document control, quality control and quality assurance responsibilities, and milestones including technical committee meetings and schedule. A draft PMP will be presented during the kickoff meeting for the City's review and comments.

Parsons will conduct project management activities throughout the duration of the project including tracking scope, schedule and budget performance, staffing assignments, and internal project team coordination.

- Prepare a project management plan (PMP)
- Conduct various project management activities throughout the duration of the project including tracking scope, schedule, budget, staffing and internal project team coordination.

4.2 Conduct Project Kickoff Meeting

- Coordinate and attend project kickoff meeting with the City.

Parsons will coordinate and attend a project kickoff meeting with the City. Our project manager and task leaders will attend. Parsons will submit a detailed project schedule and agenda before the meeting and submit the meeting minutes to the City within one week.

4.3 Coordinate Monthly Project Meetings and Biweekly Conference Calls

- Coordinate monthly project meetings with the City through the condition assessment and design phases for the duration of the proposed project schedule.

- Conduct biweekly conference calls with the City staff during these phases for the duration of the proposed project schedule.

Parsons will coordinate monthly project meetings and biweekly conference calls with the City. Parsons' project manager, task leaders, and other key staff (as necessary) will attend monthly project meetings to discuss the issues identified for the meeting. Parsons will prepare and submit an agenda before each meeting and will prepare meeting minutes. Conference calls will be less formal and will be between the City's and Parsons' project managers.

4.4 Provide Monthly Project Progress Reports

Parsons will submit monthly project progress reports, through condition assessment and design for the duration of the proposed project schedule, summarizing the project's progress for the most recent calendar month. They will include the following as a minimum:

- Summary of work completed by task
- List of proposed activities for the upcoming month
- List of pending information needed to support the planned activities for the upcoming month
- List of out-of-scope items
- Percent complete/budget status summary
- Updated project schedule showing work completed through the reporting period

4.5 Conduct Condition Assessment and Design Submittal Review Workshops

- Conduct facility condition assessment review workshops for Phase 1 and Phase 2
- Conduct Phase 1 design submittal review workshops for draft submittals.
- Conduct Phase2 design submittal review workshops at 30% design, 60% design, 90% design.
- Conduct Phase 2 constructability review workshop.

Parsons will prepare for, coordinate, and attend workshops to present key aspects of design to City staff at each progress milestone to obtain feedback and direction to move forward. Workshops may be scheduled adjacent to monthly project coordination meetings or any other meetings between City staff and Parsons' team. Parsons will submit an agenda before the meeting and submit minutes of the workshop to the City within one week.

4.6 Provide Quality Control

- Implement quality management throughout the duration of the project.

Parsons will implement its proven Total Quality Management practice for scope, task, and schedule management to ensure that the deliverables meet Parsons' established QA/QC procedures. Quality management will be implemented throughout the duration of the project.

TASK 4 ASSUMPTIONS

1. Phase 2 will include an eight-month condition assessment/facility evaluation.
2. Phase 2 will include a 17-month design period overlapping with condition assessment/facility evaluation

DELIVERABLES

TASK 4 DELIVERABLES	
• PMP, Draft and Updates • Kickoff Meeting Agenda and Minutes	• Monthly Meeting Agendas and Minutes (7) • Monthly Progress Reports (12) • Workshop Agendas and Minutes (5)

* Vertical bar indicates additional scope to the Agreement.

EXIBHIT "B"
AMENDED PROJECT SCHEDULE

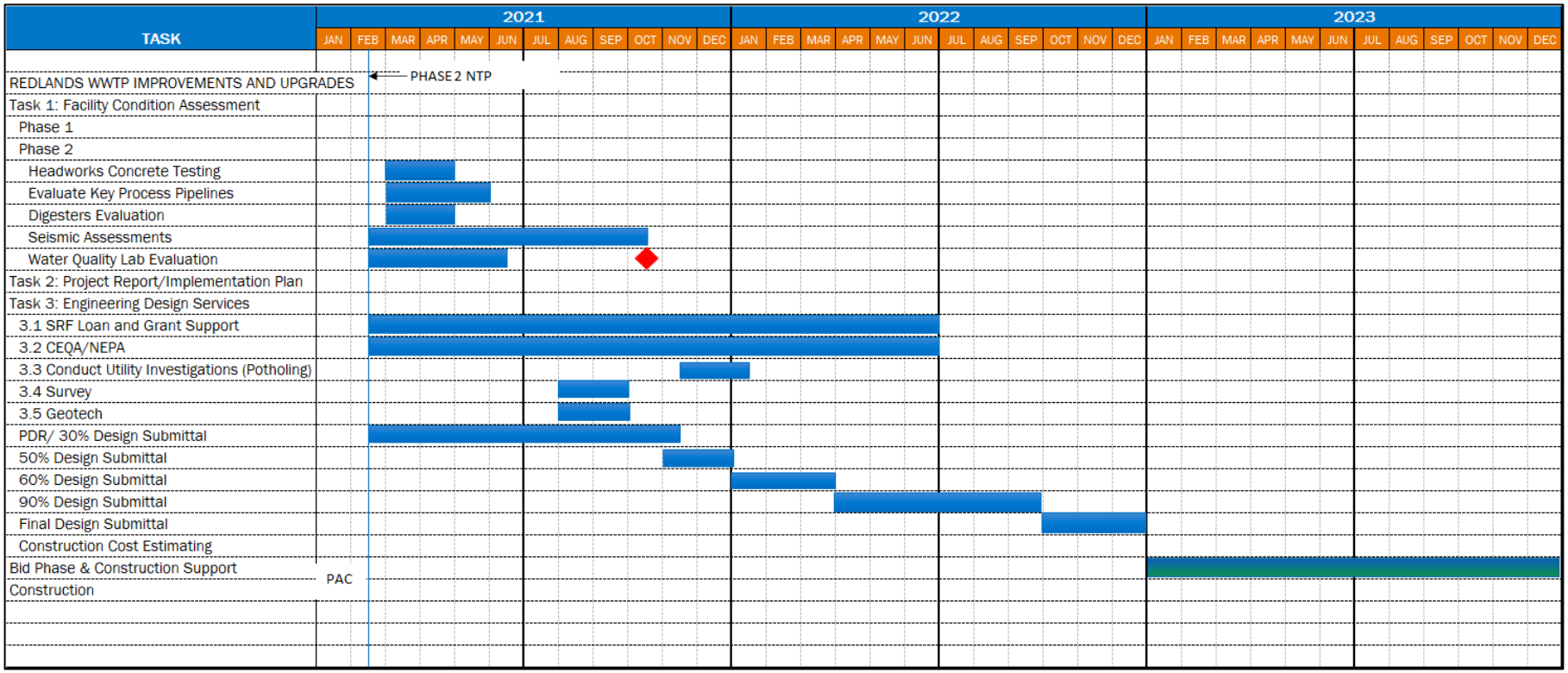


EXHIBIT "C"
AMENDED COST PROPOSAL

TASK	DESCRIPTION	Total Hours	Labor	Subconsultants									Sub Total	Markup	Subs w/ Markup	ODCs	Total
				Cbelow	Converse	Coast	CWDG	LSA	Rockwell	Smartball	V&A	Paleo Solutions		5%		2%	
Task 1	CONDUCT FACILITY CONDITION ASSESSMENT																
Phase 1																	
1.1	Gather and Review Existing Information and Meet with the O&M	76	$13,504	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$270	$13,774
1.2	Perform Comprehensive Facility Condition Assessment																
1.2.1	Assessment of Key Treatment Processes Performance and Capacities	200	$30,212										$0	$0	$0	$50	$30,262
1.2.2	Mechanical Equipment Condition Assessment	256	$33,572										$0	$0	$0	$300	$33,872
1.2.3	Major Concrete Structures Condition Assessment	200	$26,696										$0	$0	$0	$300	$26,996
1.2.4	Civil Structures Condition Assessment	68	$10,452										$0	$0	$0	$200	$10,652
1.2.5	Above Ground Pipelines Condition Assessment	68	$10,452										$0	$0	$0	$200	$10,652
1.2.6	Underground Pipelines Condition Assessment and Routing	68	$10,452										$0	$0	$0	$200	$10,652
1.2.7	Electrical Equipment and Power Supply Condition Assessment	64	$10,112						156,050				$156,050	$7,802	$163,852	$300	$174,264
1.2.8	Energy Consumption and Efficiency Assessment	56	$10,736										$0	$0	$0	$50	$10,786
1.2.9	Instrumentation and SCADA Condition Assessment	160	$22,808										$0	$0	$0	$250	$23,058
	Condition Assessment Report	152	$25,868										$0	$0	$0	$251	$26,119
	Subtotal Phase 1	1,368	$204,864	$0	$0	$0	$0	$0	$156,050	$0	$0	$0	$156,050	$7,802	$163,852	$2,371	$371,087
Phase 2																	
1.3	Conduct Concrete Testing at Headworks and Formulate Repair	156	$24,840								$30,000		$30,000	$1,500	$31,500	$497	$56,837
1.4	Evaluate Key Redundant Process Pipelines	76	$13,248							53,000			$53,000	$2,650	$55,650	$265	$69,163
1.5	Evaluate Condition of Digesters (including digester lining)	108	$21,688								$16,261		$16,261	$813	$17,074	$434	$39,196
1.6	Conduct Seismic Evaluation of Structures and Buildings	2,120	$394,440										$0	$0	$0	$7,889	$402,329
1.7	Water Quality Lab Expansion/Improvements	1,208	$206,152										$0	$0	$0	$4,123	$210,275
	Subtotal Phase 2	3,668	$660,368	$0	$0	$0	$0	$0	$0	$53,000	$46,261	$0	$99,261	$4,963	$104,224	$13,207	$777,799
	SUBTOTAL TASK 1	5,036	$865,232	$0	$0	$0	$0	$0	$156,050	$53,000	$46,261	$0	$255,311	$12,766	$268,076	$15,579	$1,148,887
Task 2	DEVELOP MULTIPURPOSE PROJECT REPORT/IMPLEMENTATION PLAN																
2.1	Develop Project Report, Implementation and CIP Plans	304	$57,266										$0	$0	$0	$0	$57,266
	SUBTOTAL TASK 2	304	$57,266	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$57,266
Task 3	PROVIDE ENGINEERING DESIGN SERVICES																
3.1	Provide SRF Loan and Grant Application Support																
	Phase 1	16	$3,808										$0	$0	$0	$0	$3,808
	Phase 2	144	$20,250													$405	$20,655
3.2	CEQA/EIR and NEPA Related Activities																
	Phase 1	410	$64,430					$16,000				$15,394	$31,394	$1,570	$32,963	$1,289	$98,682
	Phase 2	168	$23,418										$0	$0	$0	$468	$23,886
3.3	Conduct Utility Investigation	40	$5,704	$65,500									$65,500	$3,275	$68,775	$114	$74,593
3.4	Conduct Topographical Survey for Design																
	Phase 1	18	$3,400			$20,615							$20,615	$1,031	$21,646	$68	$25,114
	Phase 2	60	$10,040			10,000							$10,000	$500	$10,500	$201	$20,741
3.5	Conduct Geotechnical Investigations																
	Phase 1	32	$6,104		$18,380								$18,380	$919	$19,299	$122	$25,525
	Phase 2	72	$10,776	$29,386									$29,386	$1,469	$30,855	$216	$41,847
3.6	Prepare Preliminary Design Report (PDR)	1,272	$203,220	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,064	$207,284
3.7	Prepare Final Design/Bid Documents and Construction Support																
	Phase 1 Accelerated Services																
3.7.1	Final Design/Bid Documents	4,968	$756,340										$0	$0	$0	$15,127	$771,467
3.7.2	Bid Phase Services and Engineering Services During Construction	1,312	$202,140										$0	$0	$0	$4,043	$206,183
3.7.3	Construction Management Services	1,440	$223,200										$0	$0	$0	$4,464	$227,664
3.7.4	Project Management, Communication and Quality Control	421	$79,590										$0	$0	$0	$1,592	$81,182
	Subtotal Phase 1 Accelerated Services	8,141	$1,261,270	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$25,226	$1,286,496
	Phase 2 Services																
3.7.4	30% Design Submittal																
	Process	580	$108,928										$0	$0	$0	$2,179	$111,107
	Civil / Landscape Architecture	434	$72,274				$9,690						$9,690	$485	$10,175	$1,446	$83,894
	Structural	804	$127,624										$0	$0	$0	$2,553	$130,177
	Landscaping	36	$6,120										$0	$0	$0	$122	$6,242
	Mechanical	960	$148,372										$0	$0	$0	$2,967	$151,339
	Electrical	1,116	$176,320										$0	$0	$0	$3,526	$179,846
	I&C	1,040	$173,448										$0	$0	$0	$3,469	$176,917
	30% Design Subtotal	4,970	$813,086	$0	$0	$0	$9,690	$0	$0	$0	$0	$0	$9,690	$485	$10,175	$16,262	$839,522

AMENDED COST PROPOSAL
(Continued)

Task 1		CONDUCT FACILITY CONDITION ASSESSMENT											
	Phase 2												
	1.5	Evaluate Condition of Digesters (including digester lining)	0	$0			$18,211		$18,211	$911	$19,122	($139)	$18,983
		Subtotal Task 1	0	$0	$0	$0	$18,211	$0	$18,211	$911	$19,122	($139)	$18,983
Task 3		PROVIDE ENGINEERING DESIGN SERVICES											
	Phase 1												
	3.7	Design Services During Construction	2,560	$374,620								$3,158	$377,778
	Phase 2												
	3.4	Conduct Topographical Survey for Design	0	$0		13,978			$13,978	$699	$14,677	$0	$14,677
	3.5	Conduct Geotechnical Investigations	0	$0	21,959				$21,959	$1,098	$23,057	$0	$23,057
	3.7	Prepare Final Design/Bid Documents and Construction Support											
		Redrawing of P&IDs	349	$30,375								$608	$30,983
		Blower Building Seismic Retrofit	456	$70,910								$1,418	$72,328
		Additional Electrical Infrastructure Design	318	$56,060								$1,121	$57,181
		Miscellaneous Design Additions	150	$25,160								$503	$25,663
		Subtotal Task 3	3,833	$557,125	$21,959	$13,978	$0	$0	$35,937	$1,797	$37,734	$6,808	$601,667
REMAINING BUDGET IN APPLICABLE TASKS, CLOSED TASKS OR TASKS NOT USED													
	1.3	Conduct Concrete Testing at Headworks and Formulate Repair	(147)	($23,468)					$0	$0	$0	($477)	($23,945)
	1.4	Evaluate Key Redundant Process Pipelines	(76)	($13,248)				($53,000)	($53,000)	($2,650)	($55,650)	($265)	($69,163)
	1.5	Evaluate Condition of Digesters (including digester lining)	(108)	($21,688)					$0	$0	$0	($139)	($21,827)
	1.6	Conduct Seismic Evaluation of Structures and Buildings	60	$10,500					$0	$0	$0	$512	$11,012
	1.7	Water Quality Lab Expansion/Improvements	(99)	($14,448)					$0	$0	$0	($5)	($14,453)
	3.1	Provide SRF Loan and Grant Application Support	(74)	($10,436)					$0	$0	$0	($61)	($10,497)
	3.2	CEQA/EIR and NEPA Related Activities	26	$4,492					$0	$0	$0	$8	$4,500
	3.3	Conduct Utility Investigation (Potholing)	0	$0				($65,500)	($65,500)	($3,275)	($68,775)	$0	($68,775)
	3.7	Prepare Final Design/Bid Documents and Construction Support											
		Landscaping Design (deleted)						(21,880)	($21,880)	($1,094)	($22,974)	$0	($22,974)
		Subtotal Remaining Budget	-418	($68,296)	$0	$0	$0	($140,380)	($140,380)	($7,019)	($147,399)	($427)	($216,122)
TOTAL			3,415	$488,829	$21,959	$13,978	$18,211	-$140,380	-$86,232	-$4,312	-$90,544	$6,242	$404,528

AMENDED COST PROPOSAL
(Continued)

		3.7.5	*60% Design Submittal*														
			Process	580	$108,928									$0	$0	$0	$2,179	$111,107
			Civil / Landscape Architecture	434	$72,274				$9,690					$9,690	$485	$10,175	$1,446	$83,894
			Structural	804	$127,624									$0	$0	$0	$2,553	$130,177
			Landscaping	36	$6,120									$0	$0	$0	$122	$6,242
			Mechanical	960	$148,372									$0	$0	$0	$2,967	$151,339
			Electrical	1,116	$176,320									$0	$0	$0	$3,526	$179,846
			I&C	1,040	$173,448									$0	$0	$0	$3,469	$176,917
			60% Design Subtotal	**4,970**	**$813,086**	**$0**	**$0**	**$0**	**$9,690**	**$0**	**$0**	**$0**	**$0**	**$0**	**$9,690**	**$485**	**$10,175**	**$16,262**	**$839,522**
		3.7.6	*90% Design Submittal*														
			Process	474	$89,760									$0	$0	$0	$1,795	$91,555
			Civil / Landscape Architecture	360	$60,060				$9,690					$9,690	$485	$10,175	$1,201	$71,436
			Structural	660	$103,664									$0	$0	$0	$2,073	$105,737
			Landscaping	36	$6,120									$0	$0	$0	$122	$6,242
			Mechanical	790	$120,464									$0	$0	$0	$2,409	$122,873
			Electrical	924	$145,344									$0	$0	$0	$2,907	$148,251
			I&C	868	$140,064									$0	$0	$0	$2,801	$142,865
			90% Design Subtotal	**4,112**	**$665,476**	**$0**	**$0**	**$0**	**$9,690**	**$0**	**$0**	**$0**	**$0**	**$0**	**$9,690**	**$485**	**$10,175**	**$13,310**	**$688,960**
		3.7.7	*Final Design Submittal*														
			Process	288	$54,380									$0	$0	$0	$1,088	$55,468
			Civil / Landscape Architecture	216	$35,952				**3,225**					$3,225	$161	$3,386	$719	$40,057
			Structural	400	$64,792									$0	$0	$0	$1,296	$66,088
			Landscaping	26	$4,164									$0	$0	$0	$83	$4,247
			Mechanical	480	$74,186									$0	$0	$0	$1,484	$75,670
			Electrical	556	$89,392									$0	$0	$0	$1,788	$91,180
			I&C	520	$86,724									$0	$0	$0	$1,735	$88,459
			Final Design Subtotal	**2,486**	**$409,590**	**$0**	**$0**	**$0**	**$3,225**		**$0**	**$0**	**$0**	**$0**	**$3,225**	**$161**	**$3,386**	**$8,192**	**$421,168**
	3.8		**Construction Cost Estimate**														
		Phase 1															
		Phase 2															
		4.3.1	*30% Construction Cost Estimate*	384	$74,448									$0	$0	$0	$1,489	$75,937
		4.3.2	*90% Construction Cost Estimate*	664	$127,648									$0	$0	$0	$2,553	$130,201
	3.9		**Prepare Title 22 Report**	**120**	**$21,804**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$436**	**$22,240**
			SUBTOTAL TASK 3	**28,079**	**$4,537,558**	**$94,886**	**$18,380**	**$30,615**	**$32,295**	**$16,000**	**$0**	**$0**	**$0**	**$15,394**	**$207,570**	**$10,378**	**$217,948**	**$90,676**	**$4,846,182**
Task 4			**PROJECT MANAGEMENT, COMMUNICATION AND QUALITY CONTROL**														
	Phase 1		**Phase 1 Project Management**	580	$102,496									$0	$0	$0	$375	$102,871
	Phase 2																
	4.1		**Project Management and Prepare Project Management Plan**	116	$18,800									$0	$0	$0	$376	$19,176
	4.2		**Conduct Project Kick-off Meeting**	52	$8,580									$0	$0	$0	$172	$8,752
	4.3		**Coordinate Monthly Project Meetings and Biweekly Conference**	160	$30,112									$0	$0	$0	$602	$30,714
	4.4		**Provide Monthly Project Progress Reports**	96	$16,064									$0	$0	$0	$321	$16,385
	4.5		**Conduct Design Submittal Review Workshops**	280	$48,760									$0	$0	$0	$975	$49,735
	4.6		**Provide Quality Control**	500	$93,040									$0	$0	$0	$1,861	$94,901
			SUBTOTAL TASK 4	**1,784**	**$317,852**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,682**	**$322,534**
			Phase 1 Subtotal	10,869	$1,703,638	$0	$18,380	$20,615	$0	$16,000	$156,050	$0	$0	$15,394	$226,438	$11,322	$237,760	$29,451	$1,970,849
			Phase 2 Subtotal	24,334	$4,074,270	$94,886	$0	$10,000	$32,295	$0	$0	$53,000	$46,261	$0	$236,442	$11,822	$248,264	$81,486	$4,404,020
			TOTAL	**35,203**	**$5,777,908**	**$94,886**	**$18,380**	**$30,615**	**$32,295**	**$16,000**	**$156,050**	**$53,000**	**$46,261**	**$15,394**	**$462,880**	**$23,144**	**$486,024**	**$110,936**	**$6,374,868**

2nd amendment Total	3,415	$488,829		$21,959	$13,978				($140,380)	$18,211		($86,232)	($4,312)	($90,544)	$6,242	$404,528
GRAND TOTAL	**38,618**	**$6,266,737**	**$94,886**	**$40,339**	**$44,593**	**$32,295**	**$16,000**	**$156,050**	**($87,380)**	**$64,472**	**$15,394**	**$376,648**	**$18,832**	**$395,481**	**$117,178**	**$6,779,396**

FIRST AMENDMENT TO AGREEMENT TO PERFORM PROFESSIONAL SERVICES

This first amendment ("First Amendment") to the agreement for the provision of professional engineering services to complete wastewater treatment plant design dated March 5, 2019 ("Agreement"), by and between the City of Redlands, a municipal corporation ("City"), and Parsons Water & Infrastructure, Inc. ("Consultant"), is made and entered into this 16th day of February, 2021.

RECITALS

WHEREAS, it is the desire of the City and Consultant to amend Article 2.1 of the Agreement, specifically described in Exhibit "1," "Scope of Services" to include an "Amended Scope of Services," which is attached hereto by reference; and

WHEREAS, it is the desire of the City and Consultant to amend Article 3.2 of the Agreement to change the name of the City's representative from former representative, Paul Toor to the current representative, John R. Harris; and

WHEREAS, it is the desire of the City and Consultant to amend Article 4.1 of the Agreement, specifically described in Exhibit "2," "Project Schedule," to include "Amended Project Schedule," which is attached hereto by reference; and

WHEREAS, it is the desire of the City and Consultant to amend Article 4.2 of the Agreement to extend the Agreement until December 31, 2022; and

WHEREAS, it is the desire of the City and Consultant to amend Article 5.1 of the Agreement to increase Consultant's present total compensation of two million eight hundred sixty seven thousand five hundred fifty two dollars ($2,867,552) to the amount of six million three hundred seventy four thousand eight hundred sixty eight dollars ($6,374,868) in accordance with Exhibit "3," titled "Amended Cost Proposal," which is attached hereto by this reference;

NOW, THEREFORE, in consideration of the mutual promises contained herein, City and Consultant agree as follows:

AGREEMENT

Section 1. The scope of work performed by Consultant pursuant to Exhibit "A" of the Agreement, titled "Scope of Services," is hereby amended to include the work that is identified in Exhibit "1," "Amended Scope of Services," which is attached hereto and incorporated herein by this reference.

Section 2. Subsection 3.2 of Article 3 of the Agreement, titled "Responsibilities of City," is hereby amended to read as follows:

"3.2 City designates John R. Harris, Municipal Utilities and Engineering Department Director, as City's representative with respect to performance of the Services, and such person

shall have the authority to transmit instructions, receives information, interpret and define City's policies and decisions with respect to performance of the Services."

Section 3. The project schedule set forth in Exhibit "B" of the Agreement, titled "Project Schedule," is hereby amended to extend contract duration indicated in Exhibit "2," "Amended Project Schedule," which is attached hereto and incorporated herein by this reference.

Section 4. Subsection 4.2 of Article 4 of the Agreement, titled "Performance of Services," is hereby amended to read as follows:

"4.2 The term of this Agreement shall commence on its Effective Date and shall terminate on December 31, 2022, unless terminated earlier as provided herein."

Section 5. Subsection 5.1 of Article 5 of the Agreement, titled "Payments to Consultant," is hereby amended to read as follows:

"5.1 The total compensation for Consultant's performance of the Services shall not exceed the amount of six million three hundred seventy four thousand eight hundred sixty eight dollars ($6,374,868). City shall pay Consultant on a time and materials basis up to the not to exceed amount in accordance with Exhibit "C" titled "Amended Cost Proposal," which is attached hereto and incorporated herein by this reference."

Section 6. Subsection 5.3 of Article 5 of the Agreement, titled "Payments to Consultant," is hereby amended to read as follows:

City	Consultant
City Clerk	Satish Kamath, Vice President
City of Redlands	Parsons Water & Infrastructure, Inc.
35 Cajon Street	100 W. Walnut Street
P.O. Box 3005 (mailing)	Pasadena, CA 91124
Redlands, CA 92373	Email: Satish.kamath@parsons.com
Email: jdonaldson@cityofredlands.org	Phone: (626) 440-3355
Phone: (909) 798-7531	Fax: (626) 440-2630
Fax: (909) 798-7535	

Section 7. All other provisions of the Agreement shall remain unchanged by this First Amendment and in effect.

IN WITNESS WHEREOF, the parties have executed this First Amendment, to be effective as of February 16, 2021.

CITY OF REDLANDS

By: _____
Paul T. Barich, Mayor

PARSONS WATER & INFRASTRUCTURE, INC.

By: _____
Satish Kamath, Vice President

ATTEST:

_____
Jeanne Donaldson, City Clerk

EXHIBIT "1"
AMENDED SCOPE OF SERVICE

The City of Redlands (City) owns and operates a WWTP with a rated treatment capacity of 9.5 mgd annual average flow. Approximately 6 mgd of that capacity is in an MBR system; the remaining 3.5 mgd is in a conventional activated sludge process (ASP). Of the current 5.5 mgd annual average flow received at the WWTP, about 3.5 mgd is treated through the MBR system, and the rest is treated through ASP. Considering the 0.8% percent per year population growth rate per the City of Redlands General Plan 2035, the projected flows by 2030 (the current planning horizon) are expected to be well below the rated treatment capacity of 9.5 mgd (Figure 1).

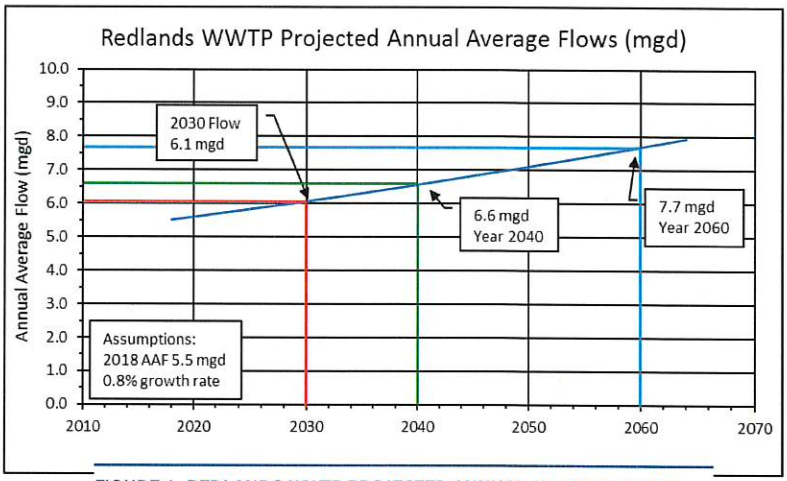


FIGURE 1. REDLANDS WWTP PROJECTED ANNUAL AVERAGE FLOWS

Scope of Services

The scope of work described in this document includes work that was completed as part of the Phase 1 project, as well as summarizes tasks and associated deliverables for the Phase 2 project.

The implementation of the modified and negotiated scope of work presented herein will:

- Maximize return on investment
- Provides higher level of reliability and redundancy
- Simplify operation by operating one state-of-the-art system (MBR) for the rated 9.5 mgd capacity
- Defer proposed year 2030 upgrades for several years, meaning significant capital expenses savings in near future
- Provide higher operational flexibility
- Eliminate permit noncompliance issues by producing high quality recycled water that complies with permit requirements at all times and is suitable for multiple recycled water uses
- Bring significant energy savings

TASK 1- CONDUCT FACILITY CONDITION ASSESSMENT

Phase 1

1.1 Gather and Review Existing Information and Meet with the O&M Staff

The Parsons team will review existing records regarding the facilities, including available record drawings, reports, O&M manuals, geotechnical reports, permits, 2 years of monthly reports to the Regional Board, and operational data. A day-long site visit and meeting/workshop with the City's O&M staff will be arranged to discuss and gather staff's knowledge of the conditions and current operations of facilities and any undocumented modifications or additions.

1.2 Perform Comprehensive Facility Condition Assessment

Parsons performed a visual condition assessment of the existing facilities as listed below, compared actual conditions to available record documents, marked up record documents to reflect actual conditions, and provided an opinion on the facility's physical condition, operational safety, reliability, and permit and code compliance to operate the WWTP at its design capacity of 9.5 mgd. We determined equipment age or year installed, estimated useful life, general rating of condition, and notation of significant deterioration/wear. The assessment included the subtasks described in the following subsections. In cases where multiple similar process units exist (e.g., primary clarifiers, secondary clarifiers) and one or more of the units is drained by the City at the time of inspection, the drained unit(s)and inner condition of the other units based on the assessment were inspected.

Facilities included in the condition assessment:

1. *Headworks*
2. *Primary clarifiers*
3. *Primary sludge pump station*
4. *Peak storage ponds and pump station*
5. *Aeration basins and blower building*
6. *Effluent pump station*
7. *MBR system*
8. *Recycled water pump station*
9. *Chlorine Contact System*
10. *RAS and WAS pump stations*
11. *Dissolved air flotation thickeners (DAFT)*
12. *Primary and secondary digesters*
13. *Dewatering facility*
14. *Solar photovoltaic array*
15. *Cogeneration Facility*

Electronic records were created to record the information for each piece of equipment, structure, and control panel evaluated.

The condition assessment consisted of four documents: Technical Memorandum 1 for Subtask 1.2.1 (TM-1), TM-2 for Subtask 1.2.8, and the Condition Assessment Report for Subtasks 1.2.2 through 1.2.7 and 1.2.9.

1.2.1 Assessment of Key Treatment Processes Performance and Capacities

Parsons' team reviewed the design criteria of key unit processes and evaluated their respective capacities under the current and design loading and flow conditions. Parsons developed a realistic capacity flow chart, compared with the permitted capacity and made recommendations for improvements. Environmental Protection Agency (EPA) redundancy and reliability requirements, as well as energy and operational efficiency, were considered to evaluate effective treatment capacity. A technical memorandum (TM-1) summarizing the analysis, key findings and recommendations with photos and calculations was submitted...

Understanding that the existing chlorination system is rated for 6.6 mgd capacity with CT of 450 mg/L-min, several agencies are working to convince Division of Drinking Water (DDW) for permitting systems with lower CT, even as low as 30 mg/L-min. The scope of work includes condition assessment of existing chlorination system for rated 6.6 mgd capacity.

1.2.2 Mechanical Equipment Condition Assessment

Parsons' team performed condition assessment of process/mechanical equipment for the aforementioned facilities. Assessment included visual observations and assessment of leakage or corrosion, disabled or inoperable equipment, identified irregular noise/vibration, remaining useful life, availability and accessibility of spare parts, materials of construction, etc. Parsons also collected relevant nameplate data and document key findings with digital photographs.

1.2.3 Major Concrete Structures Condition Assessment

Parsons' team performed structural condition assessment for the aforementioned facilities. The structural condition assessment included visual examination of the aforementioned facilities. Parsons made recommendations for more advanced testing such as non-destructive testing (NDT) for certain vulnerable facilities.

1.2.4 Civil Structures Condition Assessment

Parsons' team performed visual condition assessment of civil structures including sidewalks, paving and grading, drain structures, and other structures. We confirmed structures shown on the record drawings (e.g., catch basins, outlets, overflows) to determine effectiveness of current stormwater management practices.

<u>Assumption</u>: neither drainage modifications nor a drainage plan will be required.

1.2.5 Above Ground Pipelines Condition Assessment

The condition assessment of aboveground pipelines included materials of construction and condition of process piping. Parsons' team conducted visual assessment of above ground piping throughout the WWTP including coating evaluation and condition of exposed metals.

Recommendations were made for ultrasonic thickness (UT) measurement on accessible metallic components to determine the existing thickness.

1.2.6 Underground Pipelines Condition Assessment and Routing

Parsons' team identified and located key underground process piping (greater than 6-inch diameter) and utilities (gas, water, electrical) at the WWTP site. Parsons team reviewed existing record drawings to identify and locate process piping and utilities. This information was used as the baseline for conducting required ground survey to locate and identify key above-ground features and their ground surface elevations. The work generally conformed to ASCE Standard 38 Guidelines (Quality Level C and/or D) for the collection and depiction of existing subsurface utility data.

1.2.7 Electrical Equipment and Power Supply Condition Assessment

Parsons' team led by Reconducted a visual condition assessment of electrical and power supply equipment, including switchgear, MCCs, significant panels, standby systems, power drops, transformers and distribution system(s), circuit breakers, manholes and pull boxes, conduits and feeders, duct banks, and interface with the solar power system. The electrical condition assessment included checking for corrosion damage, problems related to moisture in conduits and panels, dust, rodents and code compliance. Open accessible manholes with the help of City staff were opened and cable and conduit via pole cameras were visually inspected without entering inside. This was used as a basis to screen underground electrical cable and conduits and identify any areas that need more detailed investigation. As-built sketches of conduit configuration, sizes, and fill were provided. The visual condition assessment was documented with notes and photos, opinion of useful component life and impact on the WWTP operation, energy efficiency, etc.

Assumptions:

- Visual condition assessment of electrical gear will require shutdown by City staff to open panels and MCCs.
- Parsons will provide one man with fall protection and confined space entry training to inspect manholes.
- The City will provide a confined space entry team and necessary equipment, as needed, for opening and inspecting manholes.

1.2.8 Energy Consumption and Efficiency Assessment

Parsons identified critical process and non-process loads across the WWTP and conducted a site investigation to gather key information such as name plate data, start-up current/voltage etc. The data gathered from the field and record drawings was analyzed and compared against industry standard energy efficiency benchmarks. A technical memorandum (TM-2) summarizing the analysis, key findings and recommendations with photos and analysis was submitted.

1.2.9 Instrumentation and SCADA Condition Assessment

Parsons' team led by RCS conducted a visual condition assessment of existing instrumentation. Parsons conducted a condition assessment of the SCADA system. For each item assessed, a general rating of condition was provided based on estimated useful life, suitability for the application including any code compliance issues, accessibility and physical relationship to the process including lines of sight from controls to the equipment.

The existing SCADA system hardware and software was assessed based on useful life including identification of any system components that needed to be upgraded by virtue of their obsolescence or their functional limitations. Based on this assessment, the expansion capability of the existing SCADA system, compatibility with third party systems, completeness of SCADA HMI graphics and SCADA monitoring features such as alarms, trends, events etc. were carefully analyzed.

Phase 2

1.3 Conduct Testing of Concrete at Headworks to Determine Extent of Damage and Formulate Repair

Concrete samples will be collected and tested to ascertain condition of concrete, based on which structural repair recommendations will be made. As a minimum, deteriorated concrete at beam pockets must be replaced with repair concrete such as *Sikacrete 211*.

1.4 Evaluate Key Process Pipelines

Critical process pipelines will be identified, and testing methods selected in conjunction with the City. The following critical process pipelines were identified in discussions with the City:

- 27-inch pipeline from headworks to primary clarifiers
- 36-inch pipeline from primary clarifiers to peak pond pump station
- 36-inch pipeline from peak pond pump station to peak pond pump no. 1
- 27-inch pipeline from effluent pump station to percolation ponds
- 6-inch pipeline from primary sludge pumps to digesters
- 6-inch pipeline from WAS pumps to DAF thickeners

1.5 Evaluate Condition of Digesters

Evaluate condition of digesters/digester lining for all primary and secondary digesters – Concrete box at the top of Primary Digester No. 2 has partial structural failure. A detailed structural analysis will be done to formulate and implement a structural repair plan, to provide a design solution that will mitigate the risk of further structural failure. Digester lining for all digesters will also be evaluated in detail and recommendations for improvement will be made accordingly. Digester piping, valving and related appurtenances will also be evaluated in detail. Digester mixing for all primary and secondary digesters will be evaluated, and necessary recommendations will be made.

1.6 Conduct a Seismic Study of Structures and Buildings

Conduct seismic evaluations of the following occupied structures:

- Administration building

- Operations control building
- Maintenance building
- Wastewater Collections Office building
- Digesters and associated buildings
- Above ground tanks including the MBRs, Aeration Basins, and the Clarifiers

Attached Exhibit E includes a memo on the proposed approach for this seismic evaluation and an inventory of buildings and structures that will be included in this analysis.

1.7 Water Quality Laboratory Expansion/Improvements

The existing Operations/Laboratory Building will require modification/expansion to accommodate future space and operational requirements. The upgraded facility will include necessary improvements–to comply with current applicable codes and standards. Parsons will develop a program of space requirements for operations personnel, lab process and material flow, operational adjacencies, and an overall facility layout. Scope of work for the modification/expansion of the lab building will include the following:

- Condition assessment of the existing Operations/Laboratory Building documenting existing lab activities, systems and equipment.
- Code of Record of Applicable Codes, Criteria and project requirements will be developed.
- Program and schematic design of the renovation and addition showing administration offices, restrooms/locker rooms, break & conference rooms as well as the reconfigured lab will be developed the required upgrades to the equipment and systems will be summarized in order to comply with current safety, building code and environmental standards.
- Conceptual drawings of the laboratory and support spaces showing new casework, cabinets, equipment, and support systems will be provided.

Parsons will prepare a Supplemental Facility Condition Assessment Report to summarize the investigations noted above and present key recommendations categorized by priority, criticality, and remaining useful life of assets. A draft report will be issued for City review and comment, comments will be addressed, and a final report will be issued.

Parsons will hold a condition assessment review workshop (refer to Subtask 5.5) to review the findings of and recommendations from the condition assessment with the City. Parsons will document all discussions and decisions made in the workshop, and enter this information into a decision log. Parsons will submit the draft report for review prior to the workshop.

Phase 2 Scope Assumptions:

- Further structural recommendations for deteriorated concrete at Headworks channels may be provided based on concrete test results; associated level of effort is not included at this time.

For inspection of buried pipelines, it is assumed that inspection will be done while the pipelines remain in service using Smartball® technology.

DELIVERABLES

TASK 1 DELIVERABLES

1. **Phase 1**

- TM-1 Key Processes Performance and Capacities, Draft and Final
- TM-2 Energy Consumption and Efficiency Assessment, Draft and Final
- Facility Condition Assessment Report: summarized field investigations per discipline per Phase 1 scope of work and presented key recommendations categorized by priority, criticality, and remaining useful life of assets. Draft and Final

2. **Phase 2**

- Comprehensive Facility Condition Assessment Report: will summarize field investigations per discipline per Phase 2 scope of work and present key recommendations categorized by priority, criticality, and remaining useful life of assets. Draft and Final

3.

TASK 2 – DEVELOP MULTIPURPOSE PROJECT REPORT/IMPLEMENTATION PLAN (COMPLETED DURING PHASE 1)

Parsons developed a multipurpose Project Report including a detailed implementation plan based on findings from Task 1, Phase 1. The implementation plan includes a list of recommended improvements for operation of the WWTP at its current 9.5 mgd permitted capacity considering the criteria of treatment process efficiency, life cycle cost, redundancy, operations convenience, permitting impacts, energy efficiency initiatives, and process control.

The Project Report includes a capital improvement program (CIP) schedule and phased implementation plan to support the City's strategy for upgrade and improvement of the WWTP processes. The CIP schedule and implementation plan includes near- and long-term milestones, timeline for design, construction, start-up and training, permitting, California Environmental Quality Act (CEQA) exemption documentation, SRF loan and/or grants funding, etc.

In addition to above, the Project Report meets the Project Report requirements for the SRF loan application package.

DELIVERABLES

TASK 2 DELIVERABLES (COMPLETED DURING PHASE 1)

- Project Report/Implementation Plan, Draft and Final

TASK 3 - PROVIDE ENGINEERING DESIGN SERVICES

Basis of Design (Bid Package) Development

Phase 1

Parsons submitted design packages for the Phase 1A project in June 2020 and Phase 1B project in October 2020. The following work was completed as part of the Phase 1A and Phase 1B projects:

MBR Facility

- Installation of new membranes/eductor system for 6 mgd - Design modifications to MBR basins to hold preselected membranes in the existing basins for up to the rated average capacity of 6 mgd (6.6 mgd peak) to provide treatment capacity for Phase 1. To meet the average daily flow capacity of 6 mgd at the specified fluxes, six (6) trains of fourteen (14) cassettes each have been provided.
- Evaluation and repair of existing membrane tanks concrete.
- Installation of weirs in membrane tanks – weirs will be provided by the MBR Equipment Supplier and will be installed in each basin in advance of membrane installation in that train.
- Ensure MBR system (including air scour blowers) is incorporated into plant SCADA by modifying existing PLCs - Current ethernet communication cards may not support communication with the turbo blower CPU which will limit the integration necessary to achieve the full benefit of the turbo membrane scour blower system. MBR vendor will provide a current Allen-Bradley ControlLogix series controller and PanelView Plus 7 HMI to replace the existing obsolete controller and HMI, respectively. Additionally, an ethernet module will also be provided to isolate the turbo blowers from the larger control network to ensure no issues with multicast traffic and communication. The existing I/O modules are current models and readily available, thus not requiring replacement. A few programming changes will be coordinated with the MBR vendor to integrate these blowers into the existing system.

Scour Air Blowers

- Design upgrades for air scour blowers will include three (3) 3700-SCFM high-speed turbo blowers. These blowers are sized for the full plant capacity so that no additional equipment will be required for the future package. Parsons will coordinate with the vendor for vendor control system and ancillaries needed as well as on-site time for the vendor representative. Parsons will also coordinate programming changes that will be needed to ensure smooth integration of these blowers into the existing system.
- Evaluate any potential structural requirements for installation of air scour blowers and harmonic filters.
- Design power supply for fine screens and evaluate power feed requirements for membranes and air scour blowers to determine if existing power supply is adequate.

Fine Screens

- Installation of new fine screens - Parsons will evaluate all potential alternatives for location of the new fine screen facility and determine most feasible location for both phases. Three

(3) in-tank inclined rotary drum type fine screens (2-mm perforated) each rated for 7.6 mgd flow, will be installed.

- Design civil aspects of concrete pad for fine screens structure.
- Address general site requirements including site access, site grading, pavement etc. for new fine screen facility.
- Design underground yard piping for routing pipelines to fine screens and from fine screens to aeration basins.
- Design of concrete pad and structural platform for installation of fine screens.
- Integrate fine screens with plant SCADA. Develop P&ID and control narrative for O&M manual - Parsons team will coordinate with the MBR vendor to ensure transition of the new fine screens to the existing plant SCADA. P&ID and control narratives will be developed for updating the current O&M manual. Additionally, Parsons will also coordinate the controls logic sequence chart (CLSC) and the operation sequence chart (OSC).

Digestion System Upgrades

- Design addition of new boilers for consistent heating of digesters and heat exchangers – Existing digester boilers are out of compliance and need to be replaced immediately.
- Provide digester gas conditioning – H2S and siloxane removal systems will be provided upstream of the boilers.

Phase 2

Key considerations are listed below for development of the design package and fee estimate. They include upgrade of the WWTP with a state-of-the-art 9.5 mgd MBR system and necessary improvements for reliability and redundancy.

1. Headworks
   - Parshall Flume FIT-1102 will be replaced
   - Replacement of raw sewage pumps nos. 1-3
   - Design new gas detection system and alarms for MCC building
   - Relocate air compressor in front of MCC enclosure
   - Provide new biotrickling filter odor control system
   - Provide two washer-compactors for screenings
   - Provide two washer-classifiers for grit
   - Provide SCADA interface for headworks equipment – see Section 13, Plant-wide I&C and SCADA system.
   - Replace old headworks motor control center (MCC) – see Section 14, Plant-wide electrical system.
   - Design new prefabricated building for MCC replacement

2. Primary Clarifiers and Primary Sludge Pump Station
   - Replace collectors and drives for primary clarifiers nos. 1-3

- Design replacement of chain and flight mechanism for Clarifier No. 2Replace primary sludge pumps nos. 1 and 2
- Replace all equipment powered by 240V to 480V power
- Design new ferric chloride dosing pumps for flow/load proportional control
- Design of new ferric chloride storage tank
- Provide recoating of concrete ferric chloride containment area
- Provisions for adequate ventilation to primary sludge pump room (6-12 ACH)
- Design SCADA interface for primary clarifiers and sludge pumps – see Section 13, Plant-wide I&C and SCADA system.
- Replace MCC at primary sludge pump station – see Section 14, Plant-wide electrical system.
- Design new prefabricated building for MCC replacement

3. Peak Ponds and Pump Station

- Evaluate and design mixing system for the Peak Ponds such as SolarBee® solar powered floating mixing units in each pond to maintain a uniform mixture of contents in the ponds.
- Peak Pond Pump Station (PPPS) capacity/performance will be evaluated. Peak capacity with all 3 pumps operating (no standby) is 13.3 MGD. Additionally, the two oldest PPPS pumps will be replaced with new pumps.
- Design proper pedestrian access (ingress/egress) to bottom of ponds
- Update pump station control strategy – see Section 13, Plant-wide I&C and SCADA system. Add status and alarm signals to SCADA – see Section 13, Plant-wide I&C and SCADA system.
- Replace MCC in peak pond pump station – see Section 14, Plant-wide electrical system
- Design new prefabricated building for MCC replacement

4. Membrane Bioreactor (MBR) and Aeration Basins

- Expand MBR capacity to 9.5 mgd
    - Install additional membranes/cassettes
    - Design modifications to membrane basins to hold preselected membranes in the existing basins for up to 9.5 mgd annual dry weather flow (ADWF)
    - Replace permeate pumps to support larger treated flows from MBR. Modify existing backpulse pumps and permeate lines –MBR system has been sized to handle 13.3 MGD peak flow with one train offline. MBR permeate pumps will be sized to handle 13.3 MGD peak flow with 5 duty pumps (one standby pump). Existing permeate lines will be checked to ensure they are adequate for future flows. Due to higher peak flows, the existing permeate lines from membranes to permeate pumps may need to be upsized.
- Convert CAS aeration basins (3) to MBR aeration basins
    - Provide new mixed liquor recycle (MLR) pumps and mixers
    - Install/configure new baffles
    - Upgrade RAS pumps to provide additional capacity for 9.5-mgd MBR

- Replace aeration blowers - Existing aeration blowers will be replaced with high-speed Turbo blowers. In addition to this, Parsons will also evaluate and provide recommendations for bearing type (air or magnetic).
- Replace aeration diffusers for all basins and design improvements to aeration control system for energy efficiency – Parsons will investigate design solutions where aeration diffusers can be replaced or taken offline for inspection and maintenance without taking the aeration basin out of service.
- Replace piping for aeration blowers on the existing CAS train
- Provide new mud valves for aeration basins
- Provide HVAC improvements to aeration basin blower building
- Design code compliance upgrades to blower building and install panic bars on doors
- Equipment pad located in the northeast corner of the aeration basins has exposed bottom of the concrete pad. Instructions will be provided in the design for the contractor to fill in the footing cavity with concrete and construct concrete curb around pad to shore the equipment pad.

5. Effluent Pump Station
   - Replace effluent pump no. 3
   - Provide a parallel pipeline to percolation ponds – see Section15, Site Civil.
   - Provide SCADA interface for process analyzers for effluent pump station monitoring and recording – see Section 13, Plant-wide I&C and SCADA system
   - Replace MCC-F and MCC-G – see Section 14, Plant-wide electrical system Design new prefabricated building for MCC replacement

6. Recycled Water Pump Station
   - Replace recycled water pump no. 1

7. Impure Water Pumps
   - The impure water pumps are located right below the chlorine contact tanks and provide washwater for cleaning/spraying etc. In the future, these pumps will also deliver water for fine screens cleaning. Capacity of these pumps need to be evaluated to ensure future requirements for washwater/fine screens cleaning etc. are met.
   - Provide SCADA interface for impure water pumps – see Section 13, Plant-wide I&C and SCADA system

8. Supernatant Ponds
   - Replace MCC-Y – see Section 14, Plant-wide electrical system Improve struvite management
     - Provide a centrate equalization tank, pumping station, and glass-lined piping to the Fine Screens.

9. Thickening System
   - Replace thickened waste activated sludge (TWAS) pumps nos. 1-4
   - Replace dissolved air floatation thickener (DAFT) recycle pump no. 1

- Design overhaul/replacement of internal mechanism for DAFT no. 1Provide SCADA interface for DAFTs – see Section 13, Plant-wide I&C and SCADA system Replace MCC-D – see Section 14, Plant-wide electrical system
- Design new prefabricated building for MCC replacement

10. Digestion System
    - Provide additional digestion capacity by construction of a new digester. Existing secondary digester will continue to be used as a holding tank for storing sludge, allowing the intermittent operation of dewatering centrifuges.
    - Reline existing digesters
    - Provide SCADA interface for digesters and upgrade digester feeding strategy – see Section 13, Plant-wide I&C and SCADA system

11. Dewatering System
    - Parsons will design a new silo and sludge conveyor system for transferring dewatered sludge from the centrifuges for direct loading onto sludge hauling trailers/trucks.
    - Replace dewatering sludge feed pump no. 1
    - Replace dewatering grinder no. 1
    - Replace small centrifuge to match large centrifuge capacity
    - Provide SCADA interface for centrifuges – see Section 13, Plant-wide I&C and SCADA system

12. Water Quality Laboratory – Improvements and Expansion
    - To be determined from Water Quality Lab Study

13. Plant-Wide I&C and Scada System
    - Following processes to be interfaced with plant SCADA:
        - Headworks – bar screens and grit removal equipment
        - Primary clarifiers and sludge pumps
        - Fine Screens
        - Primary and secondary digesters
        - DAF thickeners
        - Dewatering centrifuges
        - Impure Water Pumps
        - Waste Gas Flare
        - Gas Conditioning System
    - Following process areas status and alarms need to be displayed on plant SCADA:
        - Headworks – raw sewage pumps high temperature alarms
        - Peak pond pumps high temperature and seal leak alarms
        - Aeration basin mixers run and fail status
        - RAS & WAS pumps high temperature alarms and WAS pumps station level switches (LSLL/LSHH)
        - Secondary clarifiers pH analyzer

    - Effluent pumps high temperature alarms
    - Recycled water pumps high temperature alarms
    - SCADA communication health
- Upgrade to latest Allen-Bradley ControlLogix 5580 controllers with built-in Ethernet communications throughout the plant
- Convert PLC/SCADA communication network to Device Level Ring (DLR) topology
- Review and update missing calibration stickers on all instruments
- Optimize existing plant control strategies
- Update existing P&IDs for facilities being modified under the current scope of work

14. Plant-Wide Electrical System
    - Replace switchboard "M" – Switchboard "M" installed in 1972 (almost 50 years ago) provides power to key process areas such as return sludge pump station, headworks, primary clarifiers, thickener building, digesters, DAF thickener, effluent pump station, maintenance building, operations building and sludge pump station. Considering that the typical useful life of a switchboard is up to 30 years, switchboard "M" has far exceeded its useful life. Failure of Switchboard "M" will cause power disruption to the majority of treatment plant process areas.
    - Replace MCC-B, MCC-C, MCC-CA, MCC-D, MCC-E, MCC-F, and MCC-G and MCC-Y
        - MCC-C, MCC-D, MCC-E, MCC-F and MCC-G, installed in 1972
        - MCC-B installed prior to 1961; replace existing 240V MCC with a new, 480V MCC at a different location (outside of primary clarifier sludge pump room)
        - MCC-CA and MCC-Y installed in 1988
    - The following areas are non-compliant with NFPA 820 for electrical installation and need to be changed:
        - Headworks: The 10'-0" envelopment of influent channel is classified as Class 1 Division 2 area and "too close" to the electrical building with louvers and roll-up door opening facing the influent channel. A new prefabricated enclosure for the MCC will be designed – see Section 1, Headworks.
        - Primary Clarifier Basins and Pumps: 18 inches above water surface and 10'-0" beyond wetted wall is defined as Class 1 Division 2 area per NFPA 820. Currently, electrical installations at basins and influent channels do not comply with NEC requirements. Recommendations will be provided so that NEC requirements can be met.
        - Primary Clarifier Sludge Pump Room: Sludge Pump room is below grade with MCC-B installed in the pump room. Existing room ventilation appears to be provided by fan controlled by a timer. Area is classified as Class 1 Division 2 area with ventilation less than 6 air changes per hour. Provide continuous ventilation per NFPA 820 to reduce the hazardous classification and replace existing process equipment (240V) to match new MCC voltage (480V).
    - Primary Clarifier Sludge Pump Room: Replace existing process equipment (240V) to match new MCC voltage (480 V)

- Evaluate critical process loads for standby generator and determine load shedding strategy

15. Site Civil

- Site Civil work will include demolition, grading, yard piping
- Install new 6-foot-high chain link fence (perc ponds area)
- Provide new/redundant pipelines for key critical pipelines
    - From headworks to primary clarifiers
    - From primary clarifiers to peak ponds
    - From aeration basins to membrane basins to accommodate increased flows to the MBR process
    - From effluent pump station to percolation ponds
    - Others as determined in Task 1, Condition Assessment.
- New AC pavement for locations where new pipelines will be installed

16. Landscape Architecture

Landscaping design will include the property frontage along Nevada Street, the plant entrance, the drive all the way past the Operations/Laboratory Building and employee parking to the Maintenance Building, and the areas between the entrance drive and the plant access drive north of the Chlorine Contact Tank Operations/Laboratory Building and employee parking.

- Prepare preliminary design and initial concept ideas – Initial concept ideas will be presented in blackline plan and elevations for City review. Upon receipt of initial City feedback, we will refine our exhibits in color, with 3d modeled rendering exhibits prepared for the entry monument, gate and beautification areas, informational exhibits, as well as the walkway and patio improvement areas.
- Prepare final design including demolition plans, construction plans and details, planting plans and irrigation plans – Final design will entail the following:
    - Demolition Plans
    - Construction Plans & Details
    - Planting Plans
    - Irrigation Plans

17. Optional Items

- Develop demolition drawings for decommissioned fine screens equipment on the MBR deck.
- Witnessing of factory acceptance testing of major equipment such as aeration blowers, aeration diffusers, new centrifuge etc.
- Repair supernatant pond lining

3.1 Provide SRF Loan and Grant Applications Support

Phase 1

Parsons provided technical support for State Revolving Fund (SRF) Loans through State Water Resources Control Board (SWRCB), as requested by the City.

The Project Report required for SRF loan was developed under Task 2 – Multipurpose Project Report/Implementation Plan.

Phase 2

Provide technical support for SRF loan and available grants/incentives, on an as-needed basis up to the amount shown in the fee estimate.

3.2 CEQA/EIR and NEPA Related Activities

Phase 1

The proposed design project is subject to CEQA requirements. The project was evaluated to determine if it qualifies for an exemption from CEQA. Based on the Basis of Design (Bid Package) proposed, very limited new construction will be included in the project. Therefore, earth work will be minimal, which we believed will make the project qualify for a CEQA exemption.

In order to pursue an SRF loan or grant from the State Water Resources Control Board, in addition to filing for CEQA exemption, the project must comply with certain National Environmental Policy Act (NEPA) requirements. Parsons conducted and incorporated the results of the following three technical studies required per NEPA, which were provided to the City to include as exhibits to the SRF application:

- EPA Clean Air Act Conformity Analysis
- Biological Resources Evaluation (threatened and endangered species, wetlands)
- Archaeological and historic resources subject to National Historic Preservation Act Section 106 requirements.

During the course of the biological investigation, our team noted that the percolation ponds east of the main wastewater treatment plant and Alabama Street are in a sensitive habitat area for some small mammals. Burrows were found around the percolation ponds. This required small mammal trapping activities to be conducted to confirm the presence of sensitive species including:

- The San Bernardino kangaroo rat (SBKR)
- LA pocket mouse
- Northwestern San Diego pocket mouse

Trapping activities were conducted, and SBKR were confirmed on the site. Our environmental subconsultant also spotted red-tailed hawks in the area. The presence of SBKR and red-tailed hawks required the CEQA-Plus process to switch from completing a Conditional Exemption (CE) to preparing an Initial Study/Mitigated Negative Declaration (IS/MND).

Parsons conducted and incorporated the results of the following technical studies required per NEPA into a draft Initial Study/Mitigated Negative Declaration (IS/MND); these studies were provided to the City for use as exhibits to the SRF application.

Phase 2

The draft IS/MND was completed but did not go through the environmental review process. Parsons will review and revise the draft IS/MND to reflect the Phase 2 scope of work. At this time the following modifications are anticipated:

1. Addition of pipeline between the effluent pump station and the percolation ponds.
2. Deletion of percolation ponds improvements from the project.

Proposed project changes will require amendments to the following technical studies:

- Biological Resources Evaluation (threatened and endangered species, wetlands)
- Archaeological and historic resources subject to National Historic Preservation Act Section 106 requirements

Upon revision of the IS/MND, Parsons will submit the document for City review and approval. The IS/MND will then be circulated for a 30-day public review period (along with publication of the Notice of Intent in the local newspaper), and responses to public comments on the document will be prepared. As part of this task, Parsons will attend one Planning Commission and/or City Council meeting and file the Notice of Completion with the County Clerk.

DELIVERABLES

TASK 3.2 DELIVERABLES

4. Phase 1

- Conditional Exemption
- EPA Clean Air Act Conformity Analysis
- Biological Resources Evaluation (threatened and endangered species, wetlands)
- Archaeological and historic resources subject to National Historic Preservation Act Section 106 requirements.
- Small Mammal Trapping Report
- Draft Initial Study/Mitigated Negative Declaration (IS/MND)

5.

6. Phase 2

- Amendment to the Biological Resources Evaluation (threatened and endangered species, wetlands)
- Amendment to the Archaeological and historic resources subject to National Historic Preservation Act Section 106 requirements
- Revised IS/MND, Draft and Final
- Responses to public comments to the IS/MND

7.

3.3 Conduct Utility Investigation

Phase 2

Parsons will review the existing conditions of utilities serving the WWTP, including electric, gas, water, and modem. If upgrades of certain utilities are warranted to meet the current WWTP upgrade project needs, Parsons will coordinate with such utility companies and prepare an initial request for utility information such as atlas sheets, mapping, or as-built plans, and will notify them of the need to install planned facilities. If upgrade of utilities is required, Parsons will coordinate with utility companies. Parsons will pothole up to 10 locations. Parsons will provide the appropriate USA notifications and coordinate obtaining information from utility companies. The potholing plan will be fully coordinated with and approved by the City before any field work.

3.4 Conduct Topographical Survey for Design

Phase 1

Parsons provided aerial and limited field topographic surveys, mapping, and utility research as required for the project design for the wastewater treatment plant site and the percolation ponds site. We established survey ground control and conducted a detailed topographic survey of the project areas required for design completion. The survey and datum were tied into the state plane coordinate system and City or County benchmarks. Additionally, existing survey data was evaluated and any additional requirements were determined. Parsons reviewed existing survey data and provided aerial and limited field topographic surveys, mapping, and utility research as required for the project design. Parsons team established survey ground control and conducted detailed topographic survey of the project areas required for design completion. The survey and datum were tied into the state plane coordinate system and City or County benchmarks.

Phase 2

Parsons' surveying subconsultant will conduct aerial and topographic surveys between the wastewater treatment plant area and the percolation ponds for purposes of adding a redundant pipeline between the two. Parsons will coordinate surveying effort, review subconsultant deliverables and provide comments, and incorporate survey information into design documents.

DELIVERABLES

TASK 3.4 DELIVERABLES

8. **Phase 1**
- Survey for the wastewater treatment plant site and percolation ponds
9.
10. **Phase 2**
- Survey for the pipeline alignment between the wastewater treatment plant site and the percolation ponds
11.

3.5 Conduct Geotechnical Investigations

Phase 1

Parsons subcontractor drilled two (2) soil borings in the digester area and one (1) soil boring in the fine screens area at varying depths. Undisturbed ring samples of the subsurface materials were obtained and tested in a soil laboratory to evaluate their physical characteristics and engineering properties. A Preliminary Geotechnical Investigation Report was developed with recommendations.

Phase 2

Parsons' geotechnical subconsultant will conduct geotechnical investigations and prepare a geotechnical investigation report (GIR) for the proposed on-site facilities. The GIR will determine the suitability of the sites to allow for construction of new facilities such as new pipelines, AC pavements and new structures and provide design and construction recommendations for the project facilities. The GIR will include as identified and recommended by the geotechnical engineer associated with the proposed improvements:

- Necessary design and construction issues, including regional seismicity
- Site seismic parameters
- Groundwater presence and level
- Liquefaction
- Construction dewatering requirements (if applicable)
- Site preparation and earthwork, trenching, trench stability and excavation
- Shoring, bedding, backfill
- Excavatability of soils
- Suitability of excavated materials for backfill and compaction
- Anticipated settlement of foundations
- Bedding requirements
- Pavement section recommendations
- Soil bearing strength recommendations, etc.

1. Field exploration will consist of soil borings and cone penetration tests (CPT) at approximately six locations, 20 to 50 feet below ground surface. Borings will be provided

at locations, intervals and depths sufficient to achieve the required information as necessary for the design.

2. Pipeline between effluent pump station and percolation ponds is anticipated to be 10 to 30 feet below grade; borings will be drilled at approximately equal spacing along the alignments of this pipeline. The borings along the pipeline alignment will be no less than one field boring for each 1,000 feet of pipeline to a depth of minimum 3 feet below the bottom of trench excavation.
3. Undisturbed ring samples of the subsurface materials will be obtained and tested in a soil laboratory to evaluate their physical characteristics and engineering properties.

Parsons will coordinate geotechnical site investigations, review geotechnical report and other subconsultant deliverables and provide comments and incorporate relevant geotechnical site information for the design of various process areas, as applicable.

DELIVERABLES

TASK 3.5 DELIVERABLES

12. Phase 1

- Geotechnical Investigation Report

13.

14. Phase 2

- Geotechnical Investigation Report

3.6 Prepare Preliminary Report

Phase 2

The following technical memoranda will be prepared and presented to the City for consideration as they may impact the design scope for the Phase 2 project: Their accepted findings will be incorporated into the preliminary design report.

- *TM-1: Evaluate mixing capabilities of existing digesters* - –The Parsons Process team will evaluate the mixing systems of all primary and secondary digesters, and provide recommendations for necessary improvements.
- *TM-2: Investigate alternative, less expensive technologies for thickening to replace current primary DAF thickener* - Parsons will provide preliminary high-level screening of some prominent thickening technologies in order to select the two most beneficial technologies. These selected technologies will be then compared to DAF thickener through a life cycle cost analysis.
- *TM-3: Evaluate centrifuge capacity and redundancy* - Parsons will evaluate the existing dewatering equipment capacity and redundancy, using the design solids loads, and will recommend the required upgrades.
- *TM-4: Evaluate re-design of the dewatered sludge cake loading station and conveyance of dewatered sludge* - Parsons will evaluate the loading station based on the new solids truck

dimensions and access requirements. Based on the results of evaluation, Parsons will provide the City recommended modifications. Additionally, various methods for conveying dewatered sludge onto the sludge hauling trucks/trailers will also be evaluated and pros/cons of each method will be summarized in this memo.

- *TM-5: Evaluate provisions for phosphorus removal* – Centrate is currently sent to the degas (supernatant) ponds, from where it is pumped to both CAS and MBR trains. FeCl3 is added to the MBR side which helps mitigate PO4 levels to meet recycled water requirements. In the future scenario of returning the centrate downstream of peak ponds, it will be important to ensure phosphorus limits are in compliance with regulatory requirements. Since centrate is high in phosphorus, there will be higher phosphorus concentrations in the liquid stream, impacting effluent limits for recycled water. Parsons will evaluate the various alternatives for potential sidestream treatment technologies.
- *TM-6: Evaluate the effect of landfill leachate on the wastewater treatment plant processes, digested solids for beneficial reuse, recycled water, and alternative treatment of leachate prior to entering the wastewater stream if needed* - A small continuous flow of landfill leachate is being accepted at the treatment plant (point of injection is downstream of grit chambers). The State Water board has asked for effects of leachate on the various treatment processes, impacts on recycled water and beneficial reuse of biosolids. A feasibility study/evaluation will be conducted by Parsons to analyze impacts of constituents including PFAS, metals and TDS on both liquids and solids treatment processes, as well as to develop possible treatment alternatives. Coordination will also be conducted with the landfill to explore the option of treating the leachate before it enters the treatment plant.
- *TM-7: Evaluate the feasibility of designing and installing recycled water storage tanks (reservoirs) to meet growing demand for recycled water* – Parsons will evaluate conceptual system configuration, storage tank sizing and location.
- *TM-8: Evaluate RAS/WAS pumps* – Evaluate if existing recirculation/sludge wasting pumps are adequate for converted aeration basins, to handle higher MLSS concentrations of 8,000 mg/L. Addition of pumps may be required to handle larger treated flows from MBR. Return flow of 3Q can be obtained with the existing pumps. However, for reduced lifecycle costs, Suez has requested a return flow of 4Q, which will require additional pumping capacity. Parsons will evaluate lifecycle costs of additional pumping, compare it with the reduced lifecycle costs of MBR system, and provide necessary recommendations.

Draft technical memoranda will be presented to the City for review and comment. Comments will be incorporated in the final technical memoranda for inclusion in the preliminary design report.

Once all comments are received regarding the draft technical memoranda, Parsons will prepare a Preliminary Design Report (PDR) for the proposed improvements. The submittal will include the following:

- Process calculations
- Process diagrams and control strategy descriptions
- Hydraulic calculations
- Preliminary site layouts

- Motor list
- Single line diagrams
- Preliminary equipment selections and cut sheets
- Preliminary list of drawings
- Specification table of contents
- List of required permits, names of contact persons, telephone numbers, estimates of permit fees, probable requirements, expected processing times, schedules for application and receipt, and a plan for having the permit requirements met before project bid.
- Final Technical Memoranda Nos. 1 through 8.

The preliminary design report will be presented to the City in draft form. City comments will be incorporated in the 30% design submittal.

DELIVERABLES

TASK 3.6 DELIVERABLES

15. Phase 2

- Draft Technical Memoranda Nos. 1 through 8
- Preliminary Design Report, Draft and Final (including final technical memoranda)

3.7 Prepare Final Design/Bid Documents and Construction Support

Phase 1 Accelerated Services

3.7.1 Final Design/Bid Documents

Parsons prepared draft and final sets of plans and specifications for the Phase 1A and Phase 1B submittals. City review comments to the draft submittal were incorporated in the final submittal. Parsons held a review workshop with the City for the draft Phase 1B package. Parsons is providing support to the City for all relevant permitting as required through the design process. Parsons provided all plans, specifications and estimates in electronic format (AutoCAD 2D, Word, Excel, etc.).

3.7.2 Bid Phase Services and Engineering Services during Construction

Bid Phase Services:

- Attended Pre-Bid meeting and site walk.
- Requests for Information (RFIs) – received and reviewed Contractor's RFIs during the Bid Phase to determine if responses are required.
- Addenda – prepare three (3) addenda to provide responses to Bid Phase RFIs.

Engineering Services during Construction: Parsons continues to provide support through construction of Phase 1B.

- Review and Approve Contractor Submittals (Shop Drawings, Cut Sheets, Manuals, Vendor Tests, Certifications, and Reports) – Catalog information, review and process submittals electronically.
    - Assumed number of anticipated submittals as twenty (20).
    - Assumed number of anticipated resubmittals as ten (10).
- Respond to Requests for Information (RFIs) – Respond to Contractor's RFIs electronically for all documentation.
    - Assume number of anticipated RFIs as twenty-five (25).
- Review of Construction Change Order Requests - Coordinate with the City to review Contractor's change order requests or develop City-initiated change order requests.
    - Assume two (2) anticipated change order requests.
- Design Modifications – Provide design modifications as needed to address RFIs and change order requests.
- Construction Visits by Design Staff. Provide up to 10 visits from design staff to review construction progress/installation of equipment provided by the City.
- Provide Field Testing and Start-up Assistance. Provide written start-up protocol and assistance with process and facilities integration upon construction.
    - Provide guidance and review of Contractor's step-by-step Shutdown/Tie-in plans.
    - Provide guidance and review of Contractor's Start-up plans.
    - Provide guidance and assistance during start-up of facilities, processes, and equipment.
- Update Existing Operations and Maintenance Manual. Provide updated operations and maintenance (O&M) manual content in PDF format to replace existing manual MBR facility content following the format of the existing (O&M) manual.
    - Content on new fine screens, air scour blowers and digester boilers, heat exchangers and gas conditioning will be included.
- Prepare Record Drawings. Prepare record drawings based on the as-built drawings and contractor-provided redline drawings.
    - As-built changes to be created in AutoCAD 2D
    - Review the record drawings with the City before finalizing.
    - Submit final record drawings electronically in AutoCAD and PDF format.

3.7.3 Construction Management Services

- Full-time Resident Engineering services (RE) can be provided to conduct inspections throughout installation and start-up of the facility (assumed 180 days)
- Attend progress meetings during installation and start-up as needed.
- RE will provide preliminary review of submittals, RFIs, and other tasks as needed.

Phase 2 Services

3.7.4 Prepare 30% Design Submittal

Upon completion of the preliminary design, Parsons will submit a 30 percent design review package to the City. The plans and specifications will reflect all applicable past input received from the City. The submittal will include the following:

- Site plans
- Hydraulic profiles
- Structural plans for new structures
- Mechanical, HVAC and plumbing plans

- P&IDs
- Single line diagrams and preliminary network architecture diagrams
- 30% construction cost estimate

Parsons will hold a 30% design workshop (refer to Subtask 5.5), document all discussions related to design decisions made in the workshop, and enter this information into a decision log. Parsons will submit the final PDR and 30 percent design package for review prior to the workshop.

3.7.5 *Prepare* 60% Design Submittal

Upon completion of the design to the 60 percent complete level, Parsons will submit a 60 percent design review package to the City. The plans and specifications will reflect all applicable past input received from the City. The submittal will include the following:

- Site plans
- Topographic survey base map
- Property description and plans for any right-of-way acquisition
- Pothole investigation report
- Preliminary geotechnical investigation report
- Structures plans and sections
- Mechanical, HVAC and plumbing plans and sections
- P&IDs and network architecture diagrams
- Single line diagrams
- Power plans
- Construction sequencing plan
- Equipment catalog cut sheets

Parsons will hold a 60% design workshop (refer to Subtask 5.5), document all discussions related to design decisions made in the workshop, and enter this information into a decision log. Parsons will submit the 60 percent design package for review prior to the workshop.

Parsons will hold an internal constructability workshop with members of our construction team to review the design and solicit any recommendations to improve the constructability of the design. The construction team will be given the 60 percent design package to review prior to the workshop. Recommendations will be considered and implemented in the 90% design submittal as appropriate

3.7.6 Prepare 90% Design Submittal

Upon completion of the design to the 90 percent complete level, Parsons will submit a 90 percent design review package to the City. The plans and specifications will reflect all applicable past input received from the City. The submittal will include the following:

- Civil grading and paving plans, sections and details
- Civil yard piping plans, sections and details

- Structural plans, sections and details
- Mechanical, HVAC and plumbing plans, sections, schedules and details
- P&IDs, Network architecture diagrams and I&C details
- Electrical single line diagrams, plans, control schematics, MCC elevations, panel schedules, raceway and conduit schedules
- Edited City bid and front end documents
- Complete technical specifications
- Construction sequencing plan
- 90% construction cost estimate

Parsons will hold a 90% design workshop (refer to Subtask 5.5), document all discussions related to design decisions made in the workshop, and enter this information into a decision log. Parsons will submit the 90 percent design package for review prior to the workshop.

3.7.7 Prepare Final Design Submittal

Parsons will develop and submit the final submittal upon receipt of 90 percent review comments, and this will include the following:

- Design drawings and technical specifications – Plans and specifications will be fully checked and be ready to be advertised for construction bids. They will reflect all past City input and will include contractual language and designs required to implement the controlling agency permit requirements during construction.
- Final edited City bid and front end documents
- Final calculation package
- Final construction sequencing plan

DELIVERABLES

TASK 3.7 DELIVERABLES

16. Phase 1

- Phase 1A Bid Package, Draft and Final
- Phase 1B Bid Package, Draft and Final

17.

18. Phase 2

- 30% Design Submittal
- 60% Design Submittal
- 90% Design Submittal
- Final Design Submittal

3.8 Prepare Construction Cost Estimates

Phase 1

Parsons prepared conceptual engineer's estimates of construction costs for Phase 1A and Phase 1B packages in coordination with the City.

Phase 2

Parsons will prepare engineer's estimates of construction cost at key design milestones (30%, 90%,), to be based on relevant design documents. The cost estimates will be prepared by our cost estimating group in accordance with the AACE International cost estimate classification system. All costs will be in current dollars, referenced to the current *Engineering News-Record (ENR)* Construction Cost Index (CCI), and escalated to the estimated midpoint of construction.

DELIVERABLES

TASK 3.8 DELIVERABLES

19. Phase 1

- Phase 1A Conceptual Construction Cost Estimate
- Phase 1B Conceptual Construction Cost Estimate

20.

21. Phase 2

- 30% Construction Cost Estimate
- 90% Construction Cost Estimate

3.9 Prepare Title 22 Report

Phase 2

Parsons will prepare a Title 22 Report describing the processes used at the plant facilities for production of recycled water including redundancy and reliability features. The Title 22 Report will describe how recycled water meeting the Title 22 requirements will be produced at the plant and safety measures such as disposal of off-spec water in the event of equipment malfunction or process inadequacies, which may result in the production of recycled water that does not meet the Title 22 requirements. The Title 22 Report will be submitted to the State Water Resources Control Board (SWRCB) – Division of Drinking Water (DDW), and RWQCB for review and approval.

DELIVERABLES

TASK 3.9 DELIVERABLES

22. Title 22 Report, Draft and Final

TASK 3 ASSUMPTIONS

- TM-2: The smaller centrifuge will be replaced to match the capacity of the existing larger centrifuge – this assumption will be revisited depending upon the process evaluation during the preliminary design stage.
- TM-3: Level of effort estimate includes evaluation of two beneficial technologies for solids thickening. No design hours have been included for design of recommended technology.
- TM-4: A conveyor and storage silo have been included in the design – this assumption will be revisited depending upon the process evaluation during the preliminary design stage.
- TM-5: Level of effort estimate includes evaluation of phosphorus removal technologies. No design hours have been included for design of recommended phosphorus removal/ sidestream treatment technology.
- TM-6: No design hours have been included for design work related to landfill leachate treatment.
- The City will provide review comments at the 30%, 60% and 90% design stages.
- Parsons will work with all relevant permitting agencies such as California State Water Resources Control Board, South Coast Air Quality Management District etc., as required through the design process and gain final approval for the final design submittal.
- Parsons will provide plans in AutoCAD 2D and PDF formats; specifications in Word and PDF formats; and construction cost estimates in PDF format.

TASK 4 – PROJECT MANAGEMENT, COMMUNICATION AND QUALITY CONTROL

4.1 Project Management and Prepare Project Management Plan

Parsons will develop a project management plan (PMP) to serve as a roadmap for the project from facility assessment through construction and startup, identifying the sequence of activities and including reviews and progress reporting. The PMP will address the project implementation approach, staffing, organization, project recordkeeping, document control, quality control and quality assurance responsibilities, and milestones including technical committee meetings and schedule. A draft PMP will be presented during the kickoff meeting for the City's review and comments.

Parsons will conduct project management activities throughout the duration of the project including tracking scope, schedule and budget performance, staffing assignments, and internal project team coordination.

- Prepare a project management plan (PMP)
- Conduct various project management activities throughout the duration of the project including tracking scope, schedule, budget, staffing and internal project team coordination.

4.2 Conduct Project Kickoff Meeting

- Coordinate and attend project kickoff meeting with the City.

Parsons will coordinate and attend a project kickoff meeting with the City. Our project manager and task leaders will attend. Parsons will submit a detailed project schedule and agenda before the meeting and submit the meeting minutes to the City within one week.

4.3 Coordinate Monthly Project Meetings and Biweekly Conference Calls

- Coordinate monthly project meetings with the City through the condition assessment and design phases for the duration of the proposed project schedule.
- Conduct biweekly conference calls with the City staff during these phases for the duration of the proposed project schedule.

Parsons will coordinate monthly project meetings and biweekly conference calls with the City. Parsons' project manager, task leaders, and other key staff (as necessary) will attend monthly project meetings to discuss the issues identified for the meeting. Parsons will prepare and submit an agenda before each meeting and will prepare meeting minutes. Conference calls will be less formal and will be between the City's and Parsons' project managers.

4.4 Provide Monthly Project Progress Reports

Parsons will submit monthly project progress reports, through condition assessment and design for the duration of the proposed project schedule, summarizing the project's progress for the most recent calendar month. They will include the following as a minimum:

- Summary of work completed by task
- List of proposed activities for the upcoming month
- List of pending information needed to support the planned activities for the upcoming month
- List of out-of-scope items
- Percent complete/budget status summary
- Updated project schedule showing work completed through the reporting period

4.5 Conduct Condition Assessment and Design Submittal Review Workshops

- Conduct facility condition assessment review workshops for Phase 1 and Phase 2
- Conduct Phase 1 design submittal review workshops for draft submittals.
- Conduct Phase2 design submittal review workshops at 30% design, 60% design, 90% design.
- Conduct Phase 2 constructability review workshop.

Parsons will prepare for, coordinate, and attend workshops to present key aspects of design to City staff at each progress milestone to obtain feedback and direction to move forward. Workshops may be scheduled adjacent to monthly project coordination meetings or any other meetings between City staff and Parsons' team. Parsons will submit an agenda before the meeting and submit minutes of the workshop to the City within one week.

4.6 Provide Quality Control

- Implement quality management throughout the duration of the project.

Parsons will implement its proven Total Quality Management practice for scope, task, and schedule management to ensure that the deliverables meet Parsons' established QA/QC procedures. Quality management will be implemented throughout the duration of the project.

TASK 4 ASSUMPTIONS

1. Phase 2 will include an eight-month condition assessment/facility evaluation.
2. Phase 2 will include a 17-month design period overlapping with condition assessment/facility evaluation

DELIVERABLES

TASK 4 DELIVERABLES

- PMP, Draft and Updates
- Kickoff Meeting Agenda and Minutes
- Monthly Meeting Agendas and Minutes (7)
- Monthly Progress Reports (12)
- Workshop Agendas and Minutes (5)

EXHIBIT "2"
AMENDED PROJECT SCHEDULE

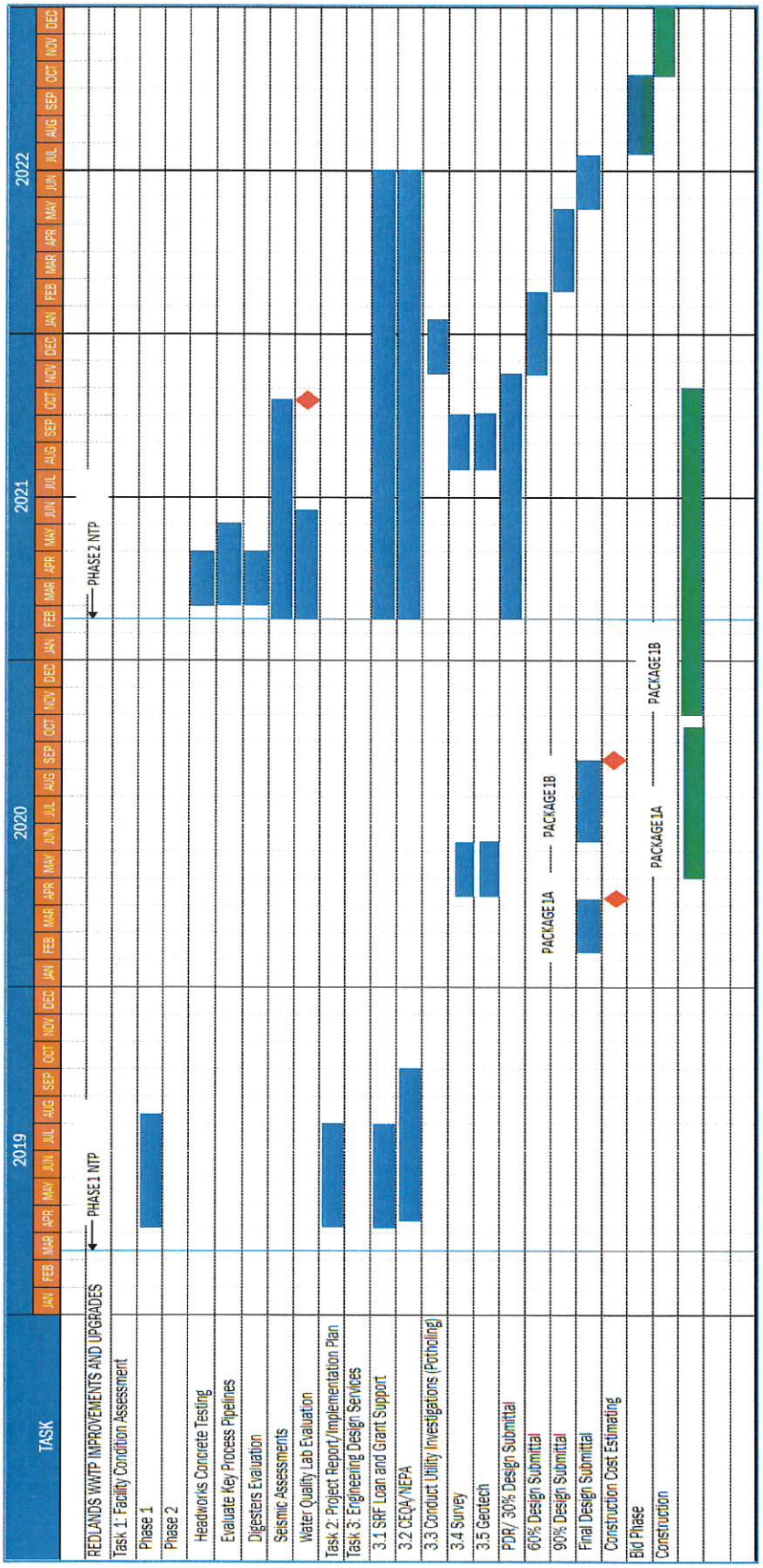


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EXHIBIT "3"
AMENDED COST PROPOSAL

		HOURS BY LABOR CLASSIFICATION																									
		TA/PIC	PM	PE1	SE	E	JE	SD	D	CE/ Sched/ PC	Admin																
TASK	DESCRIPTION	A	B	C	D	E	F	G	H	I	J	Total Hours	Labor	Subconsultants									Sub Total	Markup	Subs w/ Markup	ODCs	Total
		$280	$238	$220	$185	$155	$132	$138	$105	$190	$85			Cbelow	Converse	Coast	CWDG	LSA	Rockwell	Smartball	V&A	Paleo Solutions		5%		2%	
Task 1	CONDUCT FACILITY CONDITION ASSESSMENT																										
Phase 1																											
1.1	Gather and Review Existing Information and Meet with the O&M	0	8	16	16	16	20	0	0	0	0	76	$13,504	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$270	$13,774
1.2	Perform Comprehensive Facility Condition Assessment																										
1.2.1	Assessment of Key Treatment Processes Performance and Capacities	8	20	0	16	24	100	4	20	0	8	200	$30,212										$0	$0	$0	$50	$30,262
1.2.2	Mechanical Equipment Condition Assessment	0	12	0	16	32	92	4	80	0	20	256	$33,572										$0	$0	$0	$300	$33,872
1.2.3	Major Concrete Structures Condition Assessment	0	8	0	16	32	60	4	80	0	0	200	$26,696										$0	$0	$0	$300	$26,996
1.2.4	Civil Structures Condition Assessment	0	4	0	16	16	24	4	0	0	4	68	$10,452										$0	$0	$0	$200	$10,652
1.2.5	Above Ground Pipelines Condition Assessment	0	4	0	16	16	24	4	0	0	4	68	$10,452										$0	$0	$0	$200	$10,652
1.2.6	Underground Pipelines Condition Assessment and Routing	0	4	0	16	16	24	4	0	0	4	68	$10,452										$0	$0	$0	$200	$10,652
1.2.7	Electrical Equipment and Power Supply Condition Assessment	0	4	0	16	16	24	4	0	0	0	64	$10,112						156,050				$156,050	$7,802	$163,852	$300	$174,264
1.2.8	Energy Consumption and Efficiency Assessment	4	16	0	16	8	8	4	0	0	0	56	$10,736										$0	$0	$0	$50	$10,786
1.2.9	Instrumentation and SCADA Condition Assessment	0	16	0	0	16	120	0	0	0	8	160	$22,808										$0	$0	$0	$250	$23,058
	Condition Assessment Report	8	16	0	60	24	20	0	16	0	8	152	$25,868										$0	$0	$0	$251	$26,119
	Subtotal Phase 1	20	112	16	204	216	516	32	196	0	56	1,368	$204,864	$0	$0	$0	$0	$0	$156,050	$0	$0	$0	$156,050	$7,802	$163,852	$2,371	$371,087
Phase 2																											
1.3	Conduct Concrete Testing at Headworks and Formulate Repair	4	16	16	0	24	96	0	0	0	0	156	$24,840								$30,000		$30,000	$1,500	$31,500	$497	$56,837
1.4	Evaluate Key Redundant Process Pipelines	4	8	16	0	16	32	0	0	0	0	76	$13,248							53,000			$53,000	$2,650	$55,650	$265	$69,163
1.5	Evaluate Condition of Digesters (including digester lining)	8	4	40	40	8	8	0	0	0	0	108	$21,688								$16,261		$16,261	$813	$17,074	$434	$39,196
1.6	Conduct Seismic Evaluation of Structures and Buildings	60	40	640	640	360	360	0	0	0	0	2,120	$394,440										$0	$0	$0	$7,889	$402,329
1.7	Water Quality Lab Expansion/Improvements	40	24	80	360	464	0	240	0	0	0	1,208	$206,152										$0	$0	$0	$4,123	$210,275
	Subtotal Phase 2	16	92	792	1,040	872	496	0	0	0	0	3,668	$660,368	$0	$0	$0	$0	$0	$0	$53,000	$46,261	$0	$99,261	$4,963	$104,224	$13,207	$777,799
	SUBTOTAL TASK 1	36	204	808	1,244	1,088	1,012	32	196	0	56	5,036	$865,232	$0	$0	$0	$0	$0	$156,050	$53,000	$46,261	$0	$255,311	$12,766	$268,076	$15,579	$1,148,887
Task 2	DEVELOP MULTIPURPOSE PROJECT REPORT/IMPLEMENTATION PLAN																										
2.1	Develop Project Report, Implementation and CIP Plans	8	30	100	42	40	48	0	0	24	12	304	$57,266										$0	$0	$0	$0	$57,266
	SUBTOTAL TASK 2	8	30	100	42	40	48	0	0	24	12	304	$57,266	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$57,266
Task 3	PROVIDE ENGINEERING DESIGN SERVICES																										
3.1	Provide SRF Loan and Grant Application Support																										
	Phase 1	0	16	0	0	0	0	0	0	0	0	16	$3,808										$0	$0	$0	$0	$3,808
	Phase 2	0	4	0	12	12	114	0	0	0	2	144	$20,250													$405	$20,655
3.2	CEQA/EIR and NEPA Related Activities																										
	Phase 1	0	24	16	126	80	88	4	60	0	12	410	$64,430					$16,000				$15,394	$31,394	$1,570	$32,963	$1,289	$98,682
	Phase 2	0	4	0	12	12	138	0	0	0	2	168	$23,418										$0	$0	$0	$468	$23,886
3.3	Conduct Utility Investigation	0	0	0	8	0	32	0	0	0	0	40	$5,704	$65,500									$65,500	$3,275	$68,775	$114	$74,593
3.4	Conduct Topographical Survey for Design																										
	Phase 1	0	0	2	16	0	0	0	0	0	0	18	$3,400			$20,615							$20,615	$1,031	$21,646	$68	$25,114
	Phase 2	0	0	0	40	0	20	0	0	0	0	60	$10,040			10,000							$10,000	$500	$10,500	$201	$20,741
3.5	Conduct Geotechnical Investigations																										
	Phase 1	0	8	0	16	8	0	0	0	0	0	32	$6,104		$18,380								$18,380	$919	$19,299	$122	$25,525
	Phase 2	0	0	0	24	0	48	0	0	0	0	72	$10,776	$29,386									$29,386	$1,469	$30,855	$216	$41,847
3.6	Prepare Preliminary Design Report (PDR)	16	80	200	0	308	420	200	0	8	40	1,272	$203,220	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,064	$207,284
3.7	Prepare Final Design/Bid Documents and Construction Support																										
	Phase 1 Accelerated Services																										
3.7.1	Final Design/Bid Documents	8	200	200	840	900	700	1,200	620	200	200	4,968	$756,340										$0	$0	$0	$15,127	$771,467
3.7.2	Bid Phase Services and Engineering Services During Construction	0	40	40	432	0	200	500	0	0	100	1,312	$202,140										$0	$0	$0	$4,043	$206,183
3.7.3	Construction Management Services	0	0	0	0	1,440	0	0	0	0	0	1,440	$223,200										$0	$0	$0	$4,464	$227,664
3.7.4	Project Management, Communication and Quality Control	20	193	8	32	36	20	12	100	0	0	421	$79,590										$0	$0	$0	$1,592	$81,182
	Subtotal Phase 1 Accelerated Services	28	433	248	1,304	2,376	920	1,712	620	200	300	8,141	$1,261,270	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$25,226	$1,286,496
	Phase 2 Services																										
3.7.4	30% Design Submittal																										
	Process	60	16	72	320	0	80	0	0	0	32	580	$108,928										$0	$0	$0	$2,179	$111,107
	Civil / Landscape Architecture	40	8	0	146	0	160	80	0	0	0	434	$72,274				$9,690						$9,690	$485	$10,175	$1,446	$83,894
	Structural	16	8	0	320	0	240	220	0	0	0	804	$127,624										$0	$0	$0	$2,553	$130,177
	Landscaping	0	4	0	16	0	0	16	0	0	0	36	$6,120										$0	$0	$0	$122	$6,242
	Mechanical	16	24	0	300	0	480	140	0	0	0	960	$148,372										$0	$0	$0	$2,967	$151,339
	Electrical	16	20	0	440	0	440	200	0	0	0	1,116	$176,320										$0	$0	$0	$3,526	$179,846
	I&C	24	16	0	400	360	0	240	0	0	0	1,040	$173,448										$0	$0	$0	$3,469	$176,917
	30% Design Subtotal	172	96	72	1,942	360	1,400	896	0	0	32	4,970	$813,086	$0	$0	$0	$9,690	$0	$0	$0	$0	$0	$9,690	$485	$10,175	$16,262	$839,522

	3.7.5	60% Design Submittal																										
		Process	60	16	72	320	0	80	0	0	0	32	580	$106,928										$0	$0	$0	$2,179	$111,107
		Civil / Landscape Architecture	40	8	0	146	0	160	80	0	0	0	434	$72,274				$9,690						$9,690	$485	$10,175	$1,446	$83,894
		Structural	16	8	0	320	0	240	220	0	0	0	804	$127,624										$0	$0	$0	$2,553	$130,177
		Landscaping	0	4	0	16	0	0	16	0	0	0	36	$6,120										$0	$0	$0	$122	$6,242
		Mechanical	16	24	0	300	0	480	140	0	0	0	960	$148,372										$0	$0	$0	$2,967	$151,339
		Electrical	16	20	0	440	0	440	200	0	0	0	1,116	$176,320										$0	$0	$0	$3,526	$179,846
		I&C	24	16	0	400	360	0	240	0	0	0	1,040	$173,448										$0	$0	$0	$3,469	$176,917
		60% Design Subtotal	**172**	**96**	**72**	**1,942**	**360**	**1,400**	**896**	**0**	**0**	**32**	**4,970**	**$813,086**	**$0**	**$0**	**$0**	**$9,690**	**$0**	**$0**	**$0**	**$0**	**$0**	**$9,690**	**$485**	**$10,175**	**$16,262**	**$839,522**
	3.7.6	90% Design Submittal																										
		Process	54	12	72	240	0	72	0	0	0	24	474	$89,760										$0	$0	$0	$1,795	$91,555
		Civil / Landscape Architecture	32	8	0	124	0	132	64	0	0	0	360	$60,060				$9,690						$9,690	$485	$10,175	$1,201	$71,436
		Structural	12	8	0	240	0	200	200	0	0	0	660	$103,664										$0	$0	$0	$2,073	$105,737
		Landscaping	0	4	0	16	0	0	16	0	0	0	36	$6,120										$0	$0	$0	$122	$6,242
		Mechanical	12	16	0	220	0	400	140	0	0	0	790	$120,464										$0	$0	$0	$2,409	$122,873
		Electrical	16	8	0	360	0	360	180	0	0	0	924	$145,344										$0	$0	$0	$2,907	$148,251
		I&C	12	8	0	248	360	0	240	0	0	0	868	$140,064										$0	$0	$0	$2,801	$142,865
		90% Design Subtotal	**138**	**66**	**72**	**1,448**	**360**	**1,164**	**840**	**0**	**0**	**24**	**4,112**	**$665,476**	**$0**	**$0**	**$0**	**$9,690**	**$0**	**$0**	**$0**	**$0**	**$0**	**$9,690**	**$485**	**$10,175**	**$13,310**	**$688,960**
	3.7.7	Final Design Submittal																										
		Process	36	8	40	140	0	48	0	0	0	16	288	$54,380										$0	$0	$0	$1,088	$55,468
		Civil / Landscape Architecture	20	4	0	72	0	80	40	0	0	0	216	$35,952				3,225						$3,225	$161	$3,386	$719	$40,057
		Structural	16	4	0	160	0	100	120	0	0	0	400	$64,792										$0	$0	$0	$1,296	$66,088
		Landscaping	0	2	0	8	0	0	16	0	0	0	26	$4,164										$0	$0	$0	$83	$4,247
		Mechanical	8	12	0	150	0	240	70	0	0	0	480	$74,186										$0	$0	$0	$1,484	$75,670
		Electrical	12	4	0	240	0	120	180	0	0	0	556	$89,392										$0	$0	$0	$1,788	$91,180
		I&C	12	8	0	200	180	0	120	0	0	0	520	$86,724										$0	$0	$0	$1,735	$88,459
		Final Design Subtotal	**104**	**42**	**40**	**970**	**180**	**588**	**546**	**0**	**0**	**16**	**2,486**	**$409,590**	**$0**	**$0**	**$0**	**$3,225**		**$0**	**$0**	**$0**	**$0**	**$3,225**	**$161**	**$3,386**	**$8,192**	**$421,168**
	3.8	**Construction Cost Estimate**																										
	Phase 1																											
	Phase 2																											
	4.3.1	30% Construction Cost Estimate	8	16	0	0	0	0	0	0	360	0	384	$74,448										$0	$0	$0	$1,489	$75,937
	4.3.2	90% Construction Cost Estimate	8	16	0	0	0	0	0	0	640	0	664	$127,648										$0	$0	$0	$2,553	$130,201
	3.9	**Prepare Title 22 Report**	**4**	**8**	**40**	**0**	**60**	**0**	**0**	**0**	**0**	**8**	**120**	**$21,804**	**$0**	**$0**	**$0**	**$0**		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$436**	**$22,240**
		SUBTOTAL TASK 3	**650**	**909**	**762**	**7,860**	**4,116**	**6,332**	**5,094**	**680**	**1,208**	**468**	**28,079**	**$4,537,558**	**$94,886**	**$18,380**	**$30,615**	**$32,295**	**$16,000**	**$0**	**$0**	**$0**	**$15,394**	**$207,570**	**$10,378**	**$217,948**	**$90,676**	**$4,846,182**
Task 4		**PROJECT MANAGEMENT, COMMUNICATION AND QUALITY CONTROL**																										
Phase 1		**Phase 1 Project Management**	32	200	0	0	0	348	0	0	0	0	580	$102,496										$0	$0	$0	$375	$102,871
Phase 2																												
4.1		**Project Management and Prepare Project Management Plan**	0	40	0	0	0	60	0	0	0	16	116	$18,800										$0	$0	$0	$376	$19,176
4.2		**Conduct Project Kick-off Meeting**	4	8	0	0	12	28	0	0	0	0	52	$8,580										$0	$0	$0	$172	$8,752
4.3		**Coordinate Monthly Project Meetings and Biweekly Conference Calls**	0	64	0	0	96	0	0	0	0	0	160	$30,112										$0	$0	$0	$602	$30,714
4.4		**Provide Monthly Project Progress Reports**	0	32	0	0	0	64	0	0	0	0	96	$16,064										$0	$0	$0	$321	$16,385
4.5		**Conduct Design Submittal Review Workshops**	4	60	24	36	36	120	0	0	0	0	280	$48,760										$0	$0	$0	$975	$49,735
4.6		**Provide Quality Control**	40	60	80	80	120	0	120	0	0	0	500	$93,040										$0	$0	$0	$1,861	$94,901
		SUBTOTAL TASK 4	**80**	**464**	**104**	**116**	**264**	**620**	**120**	**0**	**0**	**16**	**1,784**	**$317,852**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,682**	**$322,534**
		Phase 1 Subtotal	88	823	382	1,708	2,720	1,920	1,748	876	224	380	10,869	$1,703,638	$0	$18,380	$20,615	$0	$16,000	$156,050	$0	$0	$15,394	$226,438	$11,322	$237,760	$29,451	$1,970,849
		Phase 2 Subtotal	686	784	1,392	7,554	2,788	6,092	3,498	0	1,008	172	24,334	$4,074,270	$94,886	$0	$10,000	$32,295	$0	$0	$53,000	$46,261	$0	$236,442	$11,822	$248,264	$81,486	$4,404,020
		GRAND TOTAL	**774**	**1,607**	**1,774**	**9,262**	**5,508**	**8,012**	**5,246**	**876**	**1,232**	**552**	**35,203**	**$5,777,908**	**$94,886**	**$18,380**	**$30,615**	**$32,295**	**$16,000**	**$156,050**	**$53,000**	**$46,261**	**$15,394**	**$462,880**	**$23,144**	**$486,024**	**$110,936**	**$6,374,868**

A = Technical Advisor and Principal-in-Charge
B = Project Manager
C = Project Engineer
D = Supervising Engineer
E = Engineer
F = Junior Engineer
G = Senior Designer
H = Designer
I = Cost Estimator/Scheduler/Project Controls
J = Administrative Support Staff/Word Processing

Subconsultants and Their Roles

Converse	- Geotechnical Investigation and Water Pump Testing
Coast	- Topographical Surveying
Smartball	- Key Redundant Process Pipeline Evaluation
V&A	- Concrete Testing at Headworks and Condition Assessment of Digesters
Cbelow	- Potholing

AGREEMENT TO PERFORM PROFESSIONAL SERVICES

This agreement for the provision of professional engineering services to complete wastewater treatment plant design ("Agreement") is made and entered in this 5th day of March, 2019 ("Effective Date"), by and between the City of Redlands, a municipal corporation ("City)" and Parsons Water & Infrastructure Inc. ("Consultant"). City and Consultant are sometimes individually referred to herein as a "Party" and, together, as the "Parties." In consideration of the mutual promises contained herein, City and Consultant agree as follows:

ARTICLE 1 – ENGAGEMENT OF CONSULTANT

1.1 City hereby engages Consultant to provide professional engineering services to complete wastewater treatment plant design services for City (the "Services").

1.2 The Services shall be performed by Consultant in a professional manner, and Consultant represents that it has the skill and the professional expertise necessary to provide the Services to City at a level of competency presently maintained by other practicing professional consultants in the industry providing like and similar types of Services.

ARTICLE 2 – SERVICES OF CONSULTANT

2.1 The Services that Consultant shall perform are more particularly described in Exhibit "A," entitled "Scope of Services," which is attached hereto and incorporated herein by reference.

2.2 Consultant shall comply with applicable federal, state and local laws and regulations in the performance of this Agreement including, but not limited to, State prevailing wage laws.

ARTICLE 3 – RESPONSIBILITIES OF CITY

3.1 City shall make available to Consultant information in its possession that may assist Consultant in performing the Services.

3.2 City designates Paul Toor, City's Municipal Utilities and Engineering Director, as City's representative with respect to performance of the Services, and such person shall have the authority to transmit instructions, receive information, interpret and define City's policies and decisions with respect to performance of the Services.

ARTICLE 4 – PERFORMANCE OF SERVICES

4.1 Consultant shall perform and complete the Services in a prompt and diligent manner in accordance with the schedule set forth in Exhibit "B," entitled "Project Schedule," which is attached hereto and incorporated herein by reference.

4.2 The term of this Agreement shall commence on its Effective Date and shall terminate on March 4, 2021, unless terminated earlier as provided herein.

4.3 If Consultant's Services include deliverable electronic visual presentation materials, and such materials shall be delivered in a form, and made available to the City, consistent with City Council adopted policy for the same. It shall be the obligation of Consultant to obtain a copy of such policy from City staff prior to making any visual presentations.

4.4 If there are changes affecting the project or scope resulting from changes in scope, new findings or delays under this Agreement, not within the reasonable control of Consultant, including, but not limited to, delays attributed to weather related delays, differing and/or unforeseen site conditions, and/or design issues, any consent and/or approval by City, or other conflicts or discrepancies that are not under the reasonable control of Consultant, and that substantially affect the level-of-effort required by Consultant to complete the Services in accordance with the provisions of this Agreement, Consultant shall promptly notify City of the identified changes and advise the City of Consultant's recommended solution. If such changes cause an increase or decrease in Consultant's cost of, or the time required for, the performance of any part of the services under this Agreement, City and Consultant shall negotiate an equitable adjustment to the schedule, budget and scope of services and the Contract shall be modified in writing accordingly.

ARTICLE 5 – PAYMENTS TO CONSULTANT

5.1 Total compensation for Consultant's performance of the Services shall not exceed the amount of two million eight hundred sixty seven thousand five hundred and fifty two dollars ($2,867,552). City shall pay Consultant on a time and materials basis up to the not to exceed amount in accordance with Exhibit "C" entitled "Cost Proposal" attached hereto and incorporated herein by reference.

52 Consultant shall submit monthly invoices to City describing the Services performed during the preceding month. Consultant's invoices shall include a brief description of the Services performed, the dates the Services were performed, the number of hours spent and by whom, and a description of reimbursable expenses related to the Services. City shall pay Consultant no later than thirty (30) days after receipt and approval by City of Consultant's invoice.

53 Any notice or other communication required, or which may be given, pursuant to this Agreement, shall be in writing. Any such notice shall be deemed delivered (i) on the date of delivery in person; (ii) five (5) days after deposit in first class registered mail, with return receipt requested; (iii) on the actual delivery date if deposited with an overnight courier; or (iv) on the date sent by facsimile, if confirmed with a copy sent contemporaneously by first class, certified, registered or express mail; in each case properly posted and fully prepaid to the appropriate address set forth below, or such other address as a Party may provide notice in accordance with this section:

City
City Clerk
City of Redlands
35 Cajon Street
P.O. Box 3005 (mailing)
Redlands, CA 92373
jdonaldson@cityofredlands.org
Phone: (909) 798-7531
Fax: (909) 798-7535

Consultant
Surendra Thakral, Senior Vice President
Parsons Water & Infrastructure, Inc.
100 W. Walnut Street, Pasadena, CA 91124
Surendra.Thakral@parsons.com
Phone: (626) 440-6263
Fax: (626) 440-2630

ARTICLE 6 – INSURANCE AND INDEMNIFICATION

6.1 A. The Services to be provided by Consultant under this Agreement are design professional services, as that term is defined under Civil Code Section 2782.8. Consultant agrees to indemnify, defend and hold harmless, City, and its elected and appointed officials, employees, and volunteers, from any and all claims, demands, costs or liability that actually or allegedly arise out of, or pertain to, or relate to the negligence, recklessness or willful misconduct of Consultant and its agents in the performance of the Services under this Agreement, but this indemnity does not apply to liability for damages for bodily injury, property damage or other loss, arising from the sole negligence, active negligence or willful misconduct by City, or its elected and appointed officials, employees, and volunteers.

B. As respects all acts or omissions which do not arise directly out of the performance of design professional services, including but not limited to those acts or omissions normally covered by general and automobile liability insurance, and to the full extent permitted by law, Consultant agrees to indemnity, defend and hold harmless City, and its elected and appointed officials, agents, employees, and volunteers from and against any claims, demands, losses, liability of any kind or nature (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including attorneys' fees and costs, court costs, interest, defense costs, and expert witness fees) where the same arise out of, are in connection with, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this Agreement by Consultant or by any individual or entity for which Consultant is legally liable, including but not limited to officers, agents, employees or sub- contractors of Consultant, excepting those which arise out of the active negligence, sole negligence or willful misconduct of the City, or its elected or appointed officials, employees and volunteers.

C. Personal injury shall include injury or damage due to death or injury to any person, whether physical, emotional, and consequential, or otherwise. Property damage shall

D. Include injury to any personal or real property. Consultant shall not be required to indemnify City for such loss or damage as is caused by the sole negligence active negligence or willful misconduct of City. Liability is caused by the comparative negligence or willful misconduct of an indemnified party, then Consultant's indemnification obligation shall be reduced in proportion to the established comparative liability. City does not waive any indemnity rights by accepting any insurance policy or certificate required pursuant to this Agreement. Consultant's indemnification obligations apply regardless of whether or not any insurance policies are determined to be applicable to the claim, demand, damage, liability, loss, cost or expense.

6.2 The following insurance coverage required by this Agreement shall be maintained by Consultant for the duration of its performance of the Services. Consultant shall not perform any Services unless and until the required insurance listed below is obtained by Consultant. Consultant shall provide City with certificates of insurance and endorsements evidencing such insurance prior to commencement of the Services. Insurance policies shall include a provision prohibiting cancellation or modification of the policy except upon thirty (30) days prior written notice to City.

A. Workers' Compensation and Employer's Liability insurance in the amount that meets statutory requirements with an insurance carrier acceptable to City, or certification to City that Consultant is self-insured or exempt from the workers' compensation laws of the State of California. Consultant shall execute and provide City with Exhibit "D" entitled "Workers' Compensation Insurance Certification," which is attached hereto and incorporated herein by this reference prior to performance of the Services.

B. Comprehensive General Liability insurance with carriers acceptable to City in the minimum amount of One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) aggregate, for public liability, property damage and personal injury is required. City shall be named as an additional insured and such insurance shall be primary and non-contributing to any insurance or self-insurance maintained by City.

C. Business Auto Liability coverage, with minimum limits of One Million Dollars ($1,000,000) per occurrence, combined single limit bodily injury liability and property damage liability. This coverage shall include all Consultant owned vehicles used in connection with Consultant's provision of the Services, hired and non-owned vehicles, and employee non-ownership vehicles. City shall be named as an additional insured and such insurance shall be primary and non-contributing to any insurance or self-insurance maintained by City.

D. Consultant shall secure and maintain professional liability insurance throughout the term of this Agreement in the amount of One Million Dollars ($1,000,000) per claim made.

ARTICLE 7 – CONFLICTS OF INTEREST

7.1 Consultant covenants and represents that it does not have any investment or interest in any

real property that may be the subject of this Agreement or any other source of income, interest in real property or investment that would be affected in any manner or degree by the performance of Consultant's Services. Consultant further covenants and represents that in the performance of its duties hereunder, no person having any such interest shall perform any Services under this Agreement.

72 Consultant agrees it is not a designated employee within the meaning of the Political Reform Act because Consultant:

A. Does not make a governmental decision whether to:

(i) approve a rate, rule or regulation, or adopt or enforce a City law;
(ii) issue, deny, suspend or revoke any City permit, license, application, certification, approval, order or similar authorization or entitlement;
(iii) authorize City to enter into, modify or renew a contract;
(iv) grant City approval to a contract that requires City approval and to which City is a party, or to the specifications for such a contract;
(v) grant City approval to a plan, design, report, study or similar item;
(vi) adopt, or grant City approval of, policies, standards or guidelines for City or for any subdivision thereof.

B. Does not serve in a staff capacity with City and in that capacity, participate in making a governmental decision or otherwise perform the same or substantially the same duties for City that would otherwise be performed by an individual holding a position specified in City's Conflict of Interest Code under Government Code section 87302.

73 In the event City determines that Consultant must disclose its financial interests, Consultant shall complete and file a Fair Political Practices Commission Form 700, Statement of Economic Interests, with the City Clerk's office pursuant to the written instructions provided by the City Clerk.

ARTICLE 8 – GENERAL CONSIDERATIONS

8.1 In the event any action is commenced to enforce or interpret any of the terms or conditions of this Agreement the prevailing Party shall, in addition to any costs and other relief, be entitled to the recovery of its reasonable attorneys' fees, including fees for the use of in-house counsel by a Party.

8.2 Consultant shall not assign any of the Services, except with the prior written approval of City and in strict compliance with the terms and conditions of this Agreement. Any assignment or attempted assignment without such prior written consent may, in the sole discretion of City, results in City's immediate termination of this Agreement.

8.3 Consultant is for all purposes under this Agreement an independent contractor and shall perform the Services as an independent contractor. Neither City nor its agents shall have control over the conduct of Consultant or Consultant's employees, except as herein set

forth. Consultant shall supply all necessary tools and instrumentalities required to perform the Services. Assigned personnel employed by Consultant are for its account only, and in no event shall Consultant or personnel retained by it be deemed to have been employed by City or engaged by City for the account of, or on behalf of City. Consultant shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent, nor shall Consultant have any authority, express or implied, to bind City to any obligation.

8.4 This Agreement may be terminated by City, in its sole discretion, by providing not less than five (5) days prior written notice to Consultant of City's intent to terminate. If this Agreement is terminated by City, an adjustment to Consultant's compensation shall be made, but (1) no amount shall be allowed for anticipated profit or unperformed Services, and (2) any payment due Consultant at the time of termination may be adjusted to the extent of any additional costs to City occasioned by any default by Consultant. Upon receipt of a termination notice, Consultant shall immediately discontinue its provision of the Services and, within five (5) days of the date of the termination notice, deliver or otherwise make available to City, copies (in both hard copy and electronic form, where applicable) of project related data, design calculations, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by Consultant in performing the Services. Consultant shall be compensated on a pro-rata basis for Services completed up to the date of termination.

8.5 Consultant shall maintain books, ledgers, invoices, accounts and other records and documents evidencing costs and expenses related to the Services for a period of three (3) years, or for any longer period required by law, from the date of final payment to Consultant pursuant to this Agreement. Such books shall be available at reasonable times for examination by City at the office of Consultant.

8.6 This Agreement, including the Exhibits incorporated herein by reference, represents the entire agreement and understanding between the Parties as to the matters contained herein, and any prior negotiations, written proposals or verbal agreements relating to such matters are superseded by this Agreement. Except as otherwise provided for herein, any amendment to this Agreement shall be in writing, approved by City and signed by City and Consultant.

8.7 This Agreement shall be governed by and construed in accordance with the laws of the State of California.

8.8 If one or more of the sentences, clauses, paragraphs or sections contained in this Agreement is declared invalid, void or unenforceable by a court of competent jurisdiction, the same shall be deemed severable from the remainder of this Agreement and shall not affect, impair or invalidate the remaining sentences, clauses, paragraphs or sections contained herein, unless to do so would deprive a Party of a material benefit of its bargain under this Agreement.

IN WITNESS WHEREOF, duly authorized representatives of City and Consultant have signed in confirmation of this Agreement.

CITY OF REDLANDS

By: _____
Paul W. Foster, Mayor

PARSONS WATER & INFRASTRUCTURE INC.

By: _____
Surendra Thakral, Senior Vice President

Attest:

_____
Jeanne Donaldson, City Clerk

EXHIBIT "A"
SCOPE OF SERVICE

The City of Redlands (City) owns and operates a WWTP with a rated treatment capacity of 9.5 mgd annual average flow. Approximately 6 mgd of that capacity is in an MBR system; the remaining 3.5 mgd is in a conventional activated sludge process (ASP). Of the current 5.5 mgd annual average flow received at the WWTP, about 3.5 mgd is treated through the MBR system, and the rest is treated through ASP. Considering the 0.8% percent per year population growth rate per the City of Redlands General Plan 2035, the projected flows by 2030 (the current planning horizon) are expected to be well below the rated treatment capacity of 9.5 mgd (Figure 1).

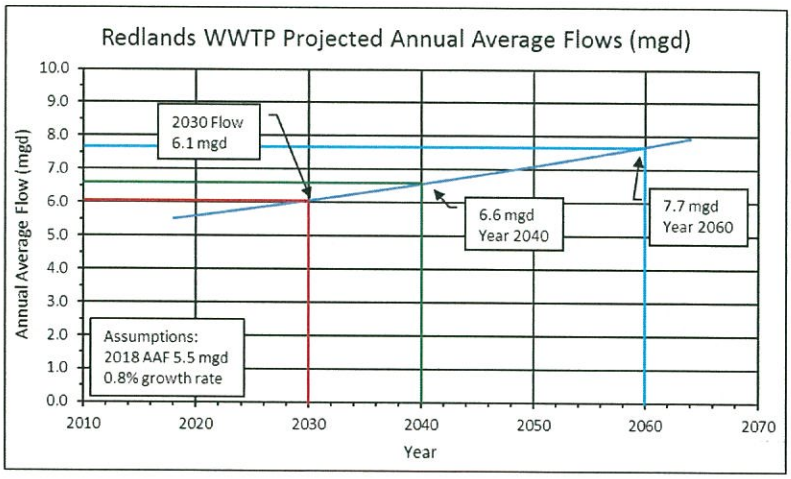

Figure 1. Redlands WWTP Projected Annual Average Flows

SCOPE OF SERVICES

The implementation of the modified and negotiated scope of work presented herein will:

- Maximize return on investment
- Provides higher level of reliability and redundancy
- Simplify operation by operating one state-of-the-art system (MBR) for the rated 9.5 mgd capacity
- Defer proposed year 2030 upgrades for several years, meaning significant capital expenses savings in near future
- Provide higher operational flexibility
- Eliminate permit noncompliance issues by producing high quality recycled water that complies with permit requirements at all times and is suitable for multiple recycled water uses
- Bring significant energy savings

TASK 1- CONDUCT FACILITY CONDITION ASSESSMENT

1.1 Gather and Review Existing Information and Meet with the O&M Staff

The Parsons team will review existing records regarding the facilities, including available record drawings, reports, O&M manuals, geotechnical reports, permits, 2 years of monthly reports to the Regional Board, and operational data. A day-long site visit and meeting/workshop with the City's O&M staff will be arranged to discuss and gather staff's knowledge of the conditions and current operations of facilities and any undocumented modifications or additions.

1.2 Perform Comprehensive Facility Condition Assessment

We will perform a visual condition assessment of the existing facilities as listed below, compare actual conditions to available record documents, mark up record documents to reflect actual conditions, and provide an opinion on the facility's physical condition, operational safety, reliability,

and permit and code compliance to operate the WWTP at its design capacity of 9.5 mgd. We will determine equipment age or year installed, estimated useful life, general rating of condition, and notation of significant deterioration/wear. The assessment will include the subtasks described in the following subsections. In cases where multiple similar process units exist (e.g., primary clarifiers, secondary clarifiers) and one or more of the units is drained by the City at the time of inspection, we will inspect the drained unit(s) and infer condition of the other units based on the assessment.

Facilities to be included in the condition assessment:

1. Headworks
2. Primary clarifiers
3. Primary sludge pump station
4. Peak storage ponds and pump station
5. Aeration basins and blower building
6. Effluent pump station
7. MBR system
8. Recycled water pump station
9. Chlorine Contact System
10. RAS and WAS pump stations
11. Dissolved air flotation thickeners (DAFT)
12. Primary and secondary digesters
13. Dewatering facility
14. Solar photovoltaic array
15. Cogeneration Facility

Electronic records will be created to record the information for each piece of equipment, structure, and control panel evaluated.

The condition assessment will consist of four documents: Technical Memorandum 1 for Subtask 1.2.1 (TM-1), TM-2 for Subtask 1.2.8, and the Condition Assessment Report for Subtasks 1.2.2 through 1.2.7 and 1.2.9.

1.2.1 Assessment of Key Treatment Processes Performance and Capacities

Parsons' team will review the design criteria of key unit processes and evaluate their respective capacities under the current and design loading and flow conditions. Parsons will develop a realistic capacity flow chart and compare with the permitted capacity and make recommendations for improvements. Environmental Protection Agency (EPA) redundancy and reliability requirements, as well as energy and operational efficiency, will be considered to evaluate effective treatment capacity. A technical memorandum (TM-1) summarizing the analysis, key findings and recommendations with photos and calculations will be prepared.

Understanding that the existing chlorination system is rated for 6.6 mgd capacity with CT of 450 mg/L-min, several agencies are working to convince Division of Drinking Water (DDW) for permitting systems with lower CT, even as low as 30 mg/L-min. The scope of work includes condition assessment of existing chlorination system for rated 6.6 mgd capacity and recommendations for CT reduction and capacity re-rating study.

1.2.2 Mechanical Equipment Condition Assessment

Parsons' team will perform condition assessment of process/mechanical equipment for the aforementioned facilities. Assessment will include visual observations and assessment of leakage or corrosion, disabled or inoperable equipment, identify irregular noise/vibration, remaining useful life, availability and accessibility of spare parts, materials of construction, etc. Parsons will collect relevant nameplate data and document key findings with digital photographs.

1.2.3 Major Concrete Structures Condition Assessment

Parsons' team will perform structural condition assessment for the aforementioned facilities. The structural condition assessment will include visual examination of the aforementioned facilities. Parsons will make recommendations for more advanced testing such as non-destructive testing (NDT) for certain vulnerable facilities if needed. The City will provide confined space entry staff and equipment if required to complete the visual inspection of drained structures.

1.2.4 Civil Structures Condition Assessment

Parsons' team will perform visual condition assessment of civil structures including sidewalks, paving and grading, drain structures, and other structures. Of particular interest will be site drainage issues. We will confirm structures shown on the record drawings (e.g., catch basins, outlets, overflows) to determine effectiveness of current stormwater management practices.

Assumption: neither drainage modifications nor a drainage plan will be required.

1.2.5 Above Ground Pipelines Condition Assessment

The condition assessment of aboveground pipelines will include materials of construction and condition of process piping. Parsons' team will conduct visual assessment of above ground piping throughout the WWTP including coating evaluation and condition of exposed metals. If needed, recommendations will be made for ultrasonic thickness (UT) measurement on accessible metallic components to determine the existing thickness.

1.2.6 Underground Pipelines Condition Assessment and Routing

Parsons' team will identify and locate key underground process piping (greater than 6-inch diameter) and utilities (gas, water, electrical) at the WWTP site. Parsons team will review existing record drawings to identify and locate process piping and utilities. This information will be used as the baseline for conducting required ground survey to locate and identify key above-ground features and their ground surface elevations. The work will generally conform to ASCE Standard 38 Guidelines (Quality Level C and/or D) for the collection and depiction of existing subsurface utility data. Limited potholing of up to 10 locations will be performed, as necessary. Parsons' team will provide the appropriate USA notifications and coordinate obtaining information from utility companies. The potholing plan will be fully coordinated and approved by the City before any field work.

1.2.7 Electrical Equipment and Power Supply Condition Assessment

Parsons' team led by RCS will conduct a visual condition assessment of electrical and power supply equipment, including switchgear, MCCs, significant panels, standby systems, power drops, transformers and distribution system(s), circuit breakers, manholes and pull boxes, conduits and feeders, duct banks, and interface with the solar power system. The electrical condition assessment will include checking for corrosion damage, problems related to moisture in conduits and panels, dust, rodents and code compliance. We will open accessible manholes with the help of City staff and visually inspect cable and conduit via pole cameras without entering inside. This will allow us to

screen underground electrical cable and conduits and identify any areas that need more detailed investigation. As-built sketches of conduit configuration, sizes, and fill will be provided. The visual condition assessment will be documented with notes and photos, opinion of useful component life and impact on the WWTP operation, energy efficiency, etc.

Assumptions:

- Visual condition assessment of electrical gear will require shutdown by City staff to open panels and MCCs.
- Parsons will provide one man with fall protection and confined space entry training to inspect manholes.
- The City will provide a confined space entry team and necessary equipment, as needed, for opening and inspecting manholes.

1.2.8 Energy Consumption and Efficiency Assessment

Parsons will identify critical process and non-process loads across the WWTP and conduct a site investigation to gather key information such as name plate data, start-up current/voltage etc. The data gathered from the field and record drawings will be analyzed and compared against industry standard energy efficiency benchmarks. A technical memorandum (TM-2) summarizing the analysis, key findings and recommendations with photos and analysis will be prepared.

1.2.9 Instrumentation and SCADA Condition Assessment

Parsons' team led by RCS will conduct a visual condition assessment of existing instrumentation. Parsons will conduct a condition assessment of the SCADA system. For each item assessed, a general rating of condition will be provided based on estimated useful life, suitability for the application including any code compliance issues, accessibility and physical relationship to the process including lines of sight from controls to the equipment.

The existing SCADA system hardware and software will be assessed based on useful life including identification of any system components that need to be upgraded by virtue of their obsolescence or their functional limitations. Based on this assessment, the expansion capability of the existing SCADA system, compatibility with third party systems, completeness of SCADA HMI graphics and SCADA monitoring features such as alarms, trends, events etc. will be carefully analyzed.

TASK 1 DELIVERABLES

- TM-1 Key Processes Performance and Capacities, Draft and Final
- TM-2 Energy Consumption and Efficiency Assessment, Draft and Final
- Comprehensive Facility Condition Assessment Report: will summarize field investigations per discipline per Tasks 1.2.2 through 1.2.7 and 1.2.9, and present key recommendations categorized by priority, criticality, and remaining useful life of assets. Draft and Final

TASK 2 – DEVELOP MULTIPURPOSE PROJECT REPORT/IMPLEMENTATION PLAN

Parsons will develop a multipurpose Project Report which will include a detailed implementation plan based on findings from Task 1. The implementation plan will include a list of recommended improvements for operation of the WWTP at its current 9.5 mgd permitted capacity considering the criteria of treatment process efficiency, life cycle cost, redundancy, operations convenience, permitting impacts, energy efficiency initiatives, and process control.

The Project Report will include a capital improvement program (CIP) schedule and phased implementation plan to support the City's strategy for upgrade and improvement of the WWTP processes. The CIP schedule and implementation plan will include near- and long-term milestones, timeline for design, construction, start-up and training, permitting, California Environmental Quality Act (CEQA) exemption documentation, SRF loan and/or grants funding, etc.

In addition to above, the Project Report will meet the Project Report requirements for the SRF loan application package. The preliminary outline of this report is provided as below:

Table 1. Project Report/Implementation Plan Preliminary Outline

Section	Title
1.0	Introduction
2.0	Summary of Condition Assessment
3.0	Project Description 3.1. Project Area A. Vicinity and service area map(s) B. Current land use and land use trends C. Current system users and any new users D. Current population and population trends 3.2. Wastewater Characteristics, Existing Facilities, and Current Water Quality A. Description of existing facilities, including treatment/reuse processes/schematic(s), design criteria, current capacities, current flows, current water quality characteristics and beneficial uses of the water resources affected by the facility, and the current discharge location(s) B. Description of all entities responsible or contributing to the existing facilities C. Sources of wastewater to the facility D. Sources of industrial or other problem constituents and current control measures E. Information about any discharge violations F. Wastewater influent characteristics and variations G. Wastewater effluent characteristics and variations H. Past efforts to address the problem through operational improvements I. Current asset, operation, and maintenance management systems J. An evaluation of excessive infiltration/inflow (I/I) to the system. If the average daily flow is above 120 gallons per capita per day, a Sewer System Evaluation Survey is required. 3.3. Treatment Objectives for Discharge or Reuse

Section	Title
	A. Reason for the project and its objectives/expected benefits B. Performance characteristics required for efficient treatment C. Health-related water characteristics required for discharge, operational, and on-site requirements D. Wastewater discharge or reuse requirements and anticipated changes in requirements E. Relevant operation and on-site requirements F. Projected future flow rates or other changes to the influent wastewater characteristics G. Additional facilities or actions needed to comply with waste discharge requirements. 3.4. Project Alternatives Analysis A. Planning and design parameters and assumptions B. Detailed alternatives analysis, including the no action alternative. Alternatives analysis should take the following into consideration: 1. Comparison of all alternatives based on life cycle costs for each alternative with breakdown of total capital, operation and maintenance (O&M), and replacement costs 2. Comparison of how the project alternatives address the state planning priorities in section 65041.1 of the Government Code 3. Comparison of climate change considerations for each alternative 4. Comparison of opportunities for water and energy efficiency for each alternative. Consider utilizing resources available on the United State Environmental Protection Agency website: http://water.epa.gov/infrastructure/sustain/waterefficiency.cfm 3.5. Selected Project A. A detailed description of the recommended project alternative and basis for selection, including a description of any water and energy efficiencies. The selected alternative should maximize the potential for efficient water use, reuse, recapture, and conservation of water and energy, considering the cost of construction, operations and maintenance, and replacement. B. Design criteria and useful life of the project C. Life cycle cost estimate based on time of construction. Include project cost breakdown, cost index, discount rate, useful life (years), life cycle cost, total capital, annual O&M, replacement cost, etc. D. Permits required for project implementation

Section	Title
	E. Description of any key issues to be resolved, particularly items likely to significantly impact the project budget or schedule, i.e., environmental review, land acquisition, special studies or monitoring needs, change of governance or formation of new governance, negotiation of agreements, operator recruitment or training needs, etc.
4.0	Recommended Facilities Project Implementation Plan 4.1 List of recommended improvements to continue operation of the WWTP, at its current capacity, until the year 2030. 4.2 Recommendation criteria: A. Treatment process efficiency; B. Lifecycle Cost; C. Redundancy; D. Operations convenience; E. Permitting impacts; F. Energy efficiency initiatives; G. Control process; and H. Impact on future WWTP operations. I. CT Reduction and Capacity Re-rating Study for Chlorine Contact Tanks 4.3 Timeframe; 4.4 Conceptual design; 4.5 Cost; 4.6 Coordination of adjacent or in-line processes; 4.7 Permitting modification requirements; and 4.8 Flow diagrams for any process modifications. 4.9 Recommendations for future long-term planning timeframes including milestones to ensure long term planning objectives are identified and accounted for.
5.0	Implementation Schedule
6.0	Capital Improvement Program
Appendices	

TASK 2 DELIVERABLES

- Project Report/Implementation Plan, Draft and Final

TASK 3 - PROVIDE ENGINEERING DESIGN SERVICES

Basis of Design (Bid Package) Development

Key considerations are listed below for development of the design package and fee estimate. They include upgrade of the WWTP with a state-of-the-art 9.5 mgd MBR system and necessary improvements for reliability and redundancy.

1. Headworks – Design new gas detection system and alarms for MCC building, relocate air compressor in front of MCC enclosure to comply with work space code compliance, provide SCADA interface for headworks equipment, replace old headworks MCC, which is past its useful life, provide a new biotrickling filter odor control system and two washer-compactors for screenings and two washer/classifiers for grit. A new pre-fabricated building will be designed for new headworks MCC replacement.

2. Primary Clarification and Pumping - Design new ferric chloride dosing pumps for flow/load proportional control to avoid excessive corrosion, design SCADA interface for primary clarifiers and sludge pumps and design replacement of chain and flight mechanism for Clarifier #2 to put it back in service.

3. Peak Storage Ponds and Pump Station - Design proper pedestrian access (ingress/egress) to bottom of ponds to alleviate safety concerns for maintenance staff and update pump station control strategy for optimization.

4. Upgrade the existing MBR and Activated Sludge System – Existing 6 mgd MBR system and 3.5 mgd activated sludge system will be upgraded to work as one single 9.5 mgd state-of-the-art MBR system to comply with the following effluent quality requirements
   - Turbidity:
     - 0.2 NTU or less 95 percent of the time;
     - 0.5 NTU or less 100 percent of the time.
   - Total Coliform:
     - 2.2/100 mL 7-day median
     - Not to exceed 23/100 mL more than once in 30 days
     - Not to exceed 200/100 mL at any time
   - Total Inorganic Nitrogen (TIN) ≤ 10 mg/L
   - Phosphorous ≤ 4 mg/L

   This 9.5 mgd MBR system conversion includes the following major facilities upgrades.

   4.1 Upgrade of Aeration Basins and Blowers
   a) Design the conversion of all six aeration basins to serve as pre-aeration tanks for the MBR system to operate at higher MLSS (8,000 mg/L) and provide nitrogen removal to meet the TIN – 10 mg/l or less criteria.
   b) Design replacement of existing air blowers with energy efficient high-speed turbo (HST) blowers to meet the increased air demand. It is assumed that new blowers can be accommodated in the existing building with some modifications. Existing blower building will not be enlarged.
   c) Design mixed liquor return (MLR) pumps for the nitrate return and anoxic mixers.
   d) Design replacement of diffusers in aeration basins to suit higher oxygen transfer.

e) Design improvements to aeration control system (DO probes, modulating valves, and HST blower controls) for energy efficiency.
f) Design code compliance upgrades to blower building and install panic bars on doors. Design HVAC system modifications for blower building.
g) Design replacement of Switchboard M in the blower building and a new pre-fabricated building to house the Switchboard M replacement.

4.2 Upgrade MBR System (*comply with the preselected MBR system under Task 3.7):*
a) Design modifications to MBR basins to hold preselected membranes in the existing basins for up to the rated average capacity of 9.5 mgd.
b) Design upgrades for air scour blowers, permeate and RAS/WAS pumps are not included in this scope of work and fee estimate because they have adequate capacity to handle up to 7.2 mgd, which will happen beyond 2050 as per current population growth rate. Refer to Figure 1.

5 Demolish Decommissioned Fine Screens – Prepare demolition plans for removal of decommissioned fine screens.

6 Design New Fine Screens Upstream of MBR Pre-aeration Basins (*comply with the preselected MBR system under Task 3.7).*

7. Secondary Clarifiers and Effluent Pump Station Upgrade
   a. No modifications to secondary clarifiers, which will become redundant after the WWTP is modified to operate one single 9.5-mgd MBR system, are considered as part of the scope.
   b. Provide SCADA Interface for process analyzers for effluent pump station for monitoring and recording.

8. Thickening System Upgrade
   a. Design overhaul/replacement of internal mechanism for DAFT #1
   b. Provide SCADA interface for DAFTs.

9. Digestion System Upgrade
   a. Design addition of new boilers for consistent heating of digesters.
   b. Provide SCADA interface for digesters.

10. Centrate Management System
   a. Design addition of centrate storage and pumps to transfer it back to the primary/secondary system at a controlled rate.
   b. Provide SCADA interface for centrifuges.

11. Cogeneration Facility – No design related work is included in the scope of work and fee estimate.

12. Design Plant-wide I &C and SCADA System Upgrades
   a. Upgrade and expand existing SCADA system to include the following plant processes that are currently not interfaced with SCADA:
      - Headworks equipment

- Primary clarifiers and sludge pumps
- Process analyzers for effluent pump station
- Dissolve air floatation thickeners
- Digesters
- Centrifuges

Existing plant PLC panels will be used for interfacing headworks equipment, DAFTs and process analyzers for effluent pumps with plant SCADA. New PLC panels and fiber optic communication cables will be provided for interfacing the digesters, centrifuges, and primary clarifiers and sludge pumps with plant SCADA.

Note: All new and existing PLC and SCADA system programming, configuration, installation and wiring will be by others.

b. Optimize existing plant control strategies
Existing plant control strategies will be modified and optimized to meet the City's operational requirements. Control strategies will be developed based on Parsons standard format.
Control strategies for MBR, centrifuges and all other vendor packaged equipment are not included.

Assumption: Existing control strategies for plant processes are available in electronic format.

c. Update existing P&IDs for facilities being modified under the current scope of work
P&ID associated with existing facilities not being modified under this scope of work will not be updated. P&IDs for MBR system, centrifuges and all other vendor packaged systems are not included.

Assumptions:
- Hard copies of P&IDs for existing plant processes are available.
- SCADA system operations manual will be provided by the City.

13. Design Plant-wide Electrical System Upgrades – Design replacement of the following electrical equipment:
    a) Switchboard M
    b) MCC-C/MCC-CA
    c) Expand existing SCADA system to include the following plant process that are currently not interfaced with SCADA requires the additional modification/changes to existing MCCs:
        - Headworks Equipment (Add existing Headworks equipment to SCADA is part of the scope of work included with replacement of MCC-C/MCC-CA).
        - Primary Clarifiers (Add existing Primary Clarifier equipment to SCADA is part of the scope of work and is included with the replacement of MCC-C/MCC-CA).
        - Sludge Pumps (Add existing Sludge Pumps to SCADA requires modification to (E) 240V MCC-X and new sludge pump schematic wiring diagrams.
        - Process Analyzers for Effluent Pump Stations (Add process analyzers requires new

electrical drawing)

- Dissolve Air Floatation Thickeners (Add DAF Thickeners to SCADA requires modification to (E) MCC-D and new schematic wiring diagrams)
- Digesters (Add existing digester equipment to SCADA requires modification to (E) MCC-DD, MCC-P and new schematic wiring diagrams).
- Centrifuge (Add existing centrifuge to SCADA requires modification to (E) Centrifuge unit control panel).

Assumptions:

- Replacement of the electrical equipment noted will require design of new buildings to hold the new equipment so parallel systems can be constructed and operations can be maintained during switchover.
- Electrical system upgrade does not include design of new standby generator.

14. Landscape Architecture
    a. Preliminary Design - Prepare a preliminary design. Initial concept ideas will be presented in blackline plan and elevations for City review. Upon receipt of initial City feedback, we will refine our exhibits in color, with 3-d modeled rendering exhibits prepared for the entry monument, gate and beautification areas, informational exhibits, as well as the walkway and patio improvement areas.
    b. Final Design – final design will entail the following:
        - Demolition Plans
        - Construction Plans & Details
        - Planting Plans
        - Irrigation Plans

3.1 Provide SRF Loan and Grant Applications Support

Parsons will provide technical support for the SRF loan and available grants/incentives, as applicable, including:

- ☐ State Revolving Fund (SRF) Loans through State Water Resources Control Board (SWRCB)
- ☐ Proposition 1 through SWRCB
- ☐ Integrated Regional Water Management grant from California Department of Water Resources (DWR)
- ☐ Water Infrastructure Finance and Innovation Act (WIFIA) program through the U.S. EPA (loans for up to 49% of the project cost)
- ☐ WaterSMART Water and Energy Efficiency Grants through Department of the Interior
- ☐ Title XVI Water Reclamation through the Bureau of Reclamation
- ☐ Reuse Grants through US Department of Agriculture

The SRF loan application requires four packages: general, environmental (CEQA plus), technical, and financial. Parsons will provide technical support for the general and technical package development. The CEQA plus document will be developed and submitted under Subtask 3.2. The Project Report required for SRF loan will be developed under Task 2 – Multipurpose Project Report/Implementation Plan.

The fee estimate includes a provision of 126 hours of technical support for a total of $20,380.

3.2 Prepare and File CEQA-Plus and NEPA Documentation for SRF Loan

The proposed design project is subject to CEQA requirements. Parsons shall prepare, in accordance with CEQA, all requisite documentation for City's possible approval of the project. Following our analysis, if the project is determined to be eligible for a CEQA exemption, upon City's approval, Parsons will file a Notice of Exemption.

Assuming the City decides to pursue an SRF loan or grant from the State Water Resources Control Board, in addition to compliance with CEQA, the project must comply with certain National Environmental Policy Act (NEPA) requirements. Parsons will conduct and incorporate the results of the following three technical studies required per NEPA, which will be provided to the City as exhibits to the SRF application:

- ☐EPA Clean Air Act Conformity Analysis
- ☐Biological Resources Evaluation (threatened and endangered species, wetlands)
- ☐Archaeological and historic resources subject to National Historic Preservation Act Section 106 requirements.

As part of this task, Parsons will attend up to two Planning Commission and/or City Council meetings.

Assumption: The City will pay all application and filing fees.

3.3 Conduct Utility Investigation

Parsons will review the existing conditions of utilities serving the WWTP, including electric, gas, water, and modem. If upgrades of certain utilities are warranted to meet the current WWTP upgrade project needs, Parsons will coordinate with such utility companies and prepare an initial request for utility information such as atlas sheets, mapping, or as-built plans, and will notify them of the need to install planned facilities. If upgrade of utilities is required, Parsons will coordinate with utility companies. Potholing required for design will be done under Subtask 1.2.6, Underground Pipelines Condition Assessment and Routing.

3.4 Conduct Topographical Survey for Design

Parsons will provide aerial and limited field topographic surveys, mapping, and utility research as required for the project design. We will establish survey ground control and conduct a detailed topographic survey of the project areas required for design completion. The survey and datum will be tied into the state plane coordinate system and City or County benchmarks.

3.5 Conduct Geotechnical Investigations

As part of Task 3 execution, Parsons will drill up to six soil borings at varying depths, as necessary for the design. Undisturbed ring samples of the subsurface materials will be obtained and tested in a soil laboratory to evaluate their physical characteristics and engineering properties. A Preliminary Geotechnical Investigation Report will be developed with recommendations for construction of selected processes.

3.6 Prepare Preliminary Design (30% Submittal)

Parsons will prepare a Preliminary Design Report (PDR) conforming to the City's Design Guidelines. The PDR will include process calculations, P&IDs and control strategy descriptions, hydraulic

calculations and profiles, stormwater calculations, site layouts, motor list, single line diagrams, selected equipment and cut sheets, preliminary cost estimate, preliminary list of drawings, specification table of contents, and project construction schedule. Parsons will submit a 30% PDR for review and approval prior to the 30% design workshop. Parsons will hold a 30% design workshop (refer to Subtask 4.5), document all discussions related to design decisions made in the workshop, and enter this information into a decision log.

3.7 Prepare Preselection RFP and Evaluate MBR System Proposals

Parsons will develop a preselection RFP, which will include performance-based selection criteria for membrane modules and accessories. Selection criteria such as life-cycle cost, experience, and references will each be weighted based on the City's preferences. Proposals from MBR manufacturers will be evaluated and scored accordingly to make recommendations to the City for selection.

3.8 Prepare Final Design/Bid Documents

Parsons will complete plans and specifications at approximately 60%, 90%, and 100% levels of completion in AutoCAD 2D. The City will provide review comments at the preliminary design, 60%, and 90% design stages. It is expected that 100% plans will be complete. Parsons will hold design workshops (refer to Subtask 4.5) at each submittal milestone. At the 90% submittal, Parsons will also conduct a constructability workshop (refer to Subtask 4.5) with all relevant City staff. Parsons will work with all relevant permitting agencies as required through the design process and gain final approval at the 100% submittal. Parsons will provide all plans, specifications and estimates in electronic format (AutoCAD 2D, Word, Excel, etc.) on DVD. This design will require development of 260 drawings, as detailed in Attachment 1: List of Drawings.

3.9 Conduct Presentations to Commission/City Council

In close coordination with the City, Parsons will prepare and conduct up to two (2) PowerPoint presentations at commission or council meetings.

3.10 Prepare Construction Cost Estimates

Parsons will prepare engineer's estimates of construction cost at key design milestones (30%, 60%, 90%, and 100% design), to be based on relevant design documents. The cost estimates will be Class 2 estimates in accordance with the AACE cost estimate classification system. All costs will be in current dollars, referenced to the current *Engineering News-Record* Construction Cost Index, and escalated to the estimated midpoint of construction.

3.11 Provide Bidding Services

Parsons will respond to Requests for Information (RFIs) during the project advertisement period, and log questions and responses. All communications with the bidders will be routed though the City. Parsons will attend a pre-bid meeting to give an overview of the project, answer general questions, and log all information requiring clarification via addendum. Parsons will prepare addenda as necessary with coordination and issuance by the City. Up to ten (10) RFIs and five (5) addenda have been considered in our proposal.

TASK 3 DELIVERABLES	
☐ CEQA Notice of Exemption/CEQA Plus documents	• Design submittals at 60%, 90% and 100% design
☐ Aerial and topographical survey data	• Commission/City Council Presentations (up to 2)
☐ 30% design documents (PDR), Draft and Final	• Construction cost estimates @ 30%, 60%, 90% and 100% design level
☐ Membrane preselection RFP, Draft and Final	• Bid phase addenda (up to 5)
☐ Preliminary Geotechnical Investigation Report, Draft and Final	

TASK 4 – PROJECT MANAGEMENT, COMMUNICATION AND QUALITY CONTROL

4.1 Project Management and Prepare Project Management Plan

Parsons will develop a project management plan (PMP) to serve as a roadmap for the project from facility assessment through construction and startup, identifying the sequence of activities and including reviews and progress reporting. The PMP will address the project implementation approach, staffing, organization, project recordkeeping, document control, quality control and quality assurance responsibilities, and milestones including technical committee meetings and schedule. A draft PMP will be presented during the kickoff meeting for the City's review and comments.

Parsons will conduct project management activities throughout the duration of the project including tracking scope, schedule and budget performance, staffing assignments, and internal project team coordination.

4.2 Conduct Project Kickoff Meeting

Parsons will coordinate and attend a project kickoff meeting with the City. Our project manager and task leaders will attend. Parsons will submit a detailed project schedule and agenda before the meeting and submit the meeting minutes to the City within one week.

4.3 Coordinate Monthly Project Meetings and Biweekly Conference Calls

Parsons will coordinate up to seven (7) monthly project meetings with the City. Parsons' project manager, task leaders, and other key staff (as necessary) will attend to discuss the issues identified for the meeting. Parsons will prepare and submit an agenda before the meeting and will prepare meeting minutes. Parsons will conduct up to fifteen (15) biweekly conference calls with the City staff to discuss the progress of the project.

4.4 Provide Monthly Project Progress Reports

Parsons will submit twelve (12) monthly project progress reports that summarize the project's progress for the most recent calendar month and will include the following as a minimum: summary of work completed by task, list of proposed activities for the upcoming month, list of pending information needed to support the planned activities for the upcoming month, list of out-of-scope items, percent complete/budget status summary, and updated project schedule showing work completed through the reporting period.

4.5 Conduct Condition Assessment and Design Submittal Review Workshops

Parsons' will conduct the following five (5) workshops during the Condition Assessment (Task 1) and design progress (Task 3):

- Workshop No. 1: Condition Assessment Review
- Workshop No. 2: 30% design (PDR) review workshop
- Workshop No. 3: 60% design review workshop
- Workshop No. 4: 90% design review workshop
- Workshop No. 5: Constructability review workshop

Parsons will prepare for, coordinate, and attend workshops to present key aspects of design to City staff at each progress milestone to obtain feedback and direction to move forward. Workshops may be scheduled adjacent to monthly project coordination meetings or any other meetings between City staff and Parsons' team.

4.6 Provide Quality Control

Parsons will implement its proven Total Quality Management practice for scope, task, and schedule management to ensure that the deliverables meet Parsons' established QA/QC procedures. Quality management will be implemented throughout the duration of the project.

TASK 4 DELIVERABLES

- PMP, Draft and Final
- Agenda and minutes for the project kickoff meeting
- Agenda and minutes of monthly meetings (7)
- Monthly progress reports (12)
- Agenda and minutes for design and constructability review workshops (5)

ATTACHMENTS

Attachment 1: List of Drawings.

Attachment 1:
List of Drawings

REDLANDS WWTP FACILITY ASSESSMENT AND IMPLEMENTATION PLAN

ATTACHMENT 1: LIST OF DRAWINGS

Dwg. No.	Sht No.	Discipline	Area	Drawing Name
1	G-1	General		Cover Sheet
2	G-2			Index Drawing
3	G-3			Symbols & Abbreviations
4	G-4			Design Data
5	G-5			Process Flow Diagram
6	G-6			Hydraulic Profile
7	G-7			Site Layout and Process Area Designations
8	G-8			Pipe Schedule
9	C-1	Civil		Location and Vicinity Maps
10	C-2			Civil Standard Notes and Symbols
11	C-3			Topographic Survey and Control Map
12	C-4			Civil Standard Details 1
13	C-5			Civil Standard Details 2
14	C-6			Erosion and Sediment Control Notes
15	C-7			Erosion and Sediment Control Plan 1
16	C-8			Erosion and Sediment Control Plan 2
17	C-9			Site Demolition Plan
18	C-10			Horizontal Control, Paving and Grading Drawing Index
19	C-11			Horizontal Control, Paving and Grading Plan 1
20	C-12			Horizontal Control, Paving and Grading Plan 2
21	C-13			Horizontal Control, Paving and Grading Plan 3
22	C-14			Yard Piping Drawing Index
23	C-15			Yard Piping Plan 1
24	C-16			Yard Piping Plan 2
25	C-17			Yard Piping Plan 3
26	C-18			Yard Piping Profiles 1
27	C-19			Yard Piping Profiles 2
28	C-20			Yard Piping Profiles 3
29	C-21			Grading Cross-Sections 1
30	C-22			Grading Cross-Sections 2
31	C-23			Civil Details 1
32	C-24			Civil Details 2
33	T-1			Landscape Title Sheet
34	LD-1			Landscape Demolition Plan
35	LD-2			Landscape Demolition Plan
36	LD-3			Landscape Demolition Plan

Dwg. No.	Sht No.	Discipline	Area	Drawing Name
37	LD-4			Landscape Demolition Plan
38	LD-5			Landscape Demolition Plan
39	LD-6			Landscape Demolition Plan
40	LD-7			Landscape Demolition Plan
41	LD-8			Landscape Demolition Plan
42	LD-9			Landscape Demolition Plan
43	LG-0			Landscape Grading Layout
44	LG-1			Landscape Grading Plan
45	LG-2			Landscape Grading Plan
46	LG-3			Landscape Grading Plan
47	LC-1			Landscape Construction Plan
48	LC-2			Landscape Construction Plan
49	LC-3			Landscape Construction Plan
50	LC-4			Landscape Construction Plan
51	LC-5			Landscape Construction Plan
52	LC-6			Landscape Construction Plan
53	LC-7			Landscape Construction Plan
54	LC-8			Landscape Construction Plan
55	LC-9			Landscape Construction Plan
56	LC-10			Landscape Construction Details
57	LC-11			Landscape Construction Details
58	LC-12			Landscape Construction Details
59	LC-13			Landscape Construction Details
60	LC-14			Landscape Construction Details
61	LI-1			Irrigation Plan
62	LI-2			Irrigation Plan
63	LI-3			Irrigation Plan
64	LI-4			Irrigation Plan
65	LI-5			Irrigation Plan
66	LI-6			Irrigation Plan
67	LI-7			Irrigation Plan
68	LI-8			Irrigation Plan
69	LI-9			Irrigation Plan
70	LI-10			Irrigation Details
71	LI-11			Irrigation Details
72	LP-1			Planting Plan
73	LP-2			Planting Plan
74	LP-3			Planting Plan
75	LP-4			Planting Plan
76	LP-5			Planting Plan

Dwg. No.	Sht No.	Discipline	Area	Drawing Name
77	LP-6			Planting Plan
78	LP-7			Planting Plan
79	LP-8			Planting Plan
80	LP-9			Planting Plan
81	LP-10			Planting Details
82	S-1	Structural	General	Structural Notes Sheet 1
83	S-2			Structural Notes Sheet 2
84	S-3			Structural Details Sheet 1
85	S-4			Structural Details Sheet 2
86	S-5			Structural Details Sheet 3
87	S-6			Structural Details Sheet 4
88	S-7			Structural Details Sheet 5
89	S-8			Structural Details Sheet 6
90	S-9			Structural Details Sheet 7
91	S-10		Headworks	Headwork New Cover - Plan
92	S-11			Headwork New Cover - Sections
93	S-12			Headwork New Cover - Details
94	S-13			Washer-Compactor-Foundation Plan
95	S-14			Washer-Compactor-Sections
96	S-15			Washer-Compactor-Details
97	S-16			Grit Clasifier - Plan and Details
98	S-17		Fine Screens	New Fine Screen - Lower Plan
99	S-18			New Fine Screen - Upper Plan
100	S-19			New Fine Screen - Sections
101	S-20			New Fine Screen - Details
102	S-21			New Fine Screen - Details
103	S-22			New Fine Screen - Cover Details
104	S-23		Peak Storage Ponds	New Access to Pond - Plan, Sections & Details
105	S-24		Aeration Basins and Blower Building	Aeration Basin Modifications - Lower Plan
106	S-25			Aeration Basin Modifications - Upper Plan
107	S-26			Aeration Basin Modifications - Sections
108	S-27			Aeration Basin Modifications - Details
109	S-28			Aeration Basin Modifications - Details
110	S-29			Blower Building Modifications - Foundation Plan
111	S-30			Blower Building Modifications - Roof Framing Plan
112	S-31			Blower Building Modifications - Sections
113	S-32			Blower Building Modifications - Details
114	S-33			Blower Building Modifications - Details

Dwg. No.	Sht No.	Discipline	Area	Drawing Name
115	S-34		Centrate Management	New Storage Tank and Pump Station - Foundation Plan
116	S-35			New Storage Tank and Pump Station - Sections and Details
117	S-36		Electrical Improvements	Prefab Electrical Room1 - Foundation plan
118	S-37			Prefab Electrical Room2 - Foundation plan
119	M-1	Mechanical	General	General Notes and Equipment Schedule
120	M-2			Valve and Gate Schedule
121	M-3			Mechanical Details 1
122	M-4			Mechanical Details 2
123	M-5			Mechanical Details 3
124	M-6			Mechanical Details 4
125	M-7			Mechanical Details 5
126	M-8		Headworks	General Notes, Equipment Schedule
127	M-9			Valve and Gate Schedule
128	M-10			Washer/Compactors Plan and Section
129	M-11			Grit Washer/Classifiers Plan and Section
130	M-12		Primary Clarification and Pumping	Ferric Chloride System Modifications
131	M-13			MCC Bldg HVAC Floor and Roof Plan
132	M-14			MCC Title 24
133	M-15			MCC Title 24
134	M-16			MCC Title 24
135	M-17			MCC Title 24
136	M-18			Primary Clarifier No. 2 Demolition
137	M-19			Primary Clarifier No. 2 Plan
138	M-20			Primary Clarifier No. 2 Sections and Details
139	M-21		MBR System	Aeration Basins 1-3 Equipment and Piping Plan
140	M-22			Aeration Basins 4-6 Equipment and Piping Plan
141	M-23			Aeration Basins Equipment and Piping Sections
142	M-24			Aeration Basins Equipment and Piping Sections
143	M-25			Existing Blower Equipment and Piping Demolition Plan
144	M-26			Existing Blower Equipment and Piping Demolition Sections
145	M-27			New Blower Equipment and Piping Plan
146	M-28			New Blower Equipment and Piping Sections
147	M-29			Blower Building HVAC Floor Plan
148	M-30			Blower Building HVAC Roof Plan
149	M-31			HVAC Title 24
150	M-32			HVAC Title 24

Dwg. No.	Sht No.	Discipline	Area	Drawing Name
151	M-33			HVAC Title 24
152	M-34			HVAC Title 24
153	M-35			MCC Bldg HVAC Floor and Roof Plan
154	M-36			MCC Title 24
155	M-37			MCC Title 24
156	M-38			MCC Title 24
157	M-39			MCC Title 24
158	M-40		Fine Screens	Demo Existing Fine Screens
159	M-41			Fine Screens 1
160	M-42			Fine Screens 2
161	M-43			Fine Screens 3
162	M-44		Thickening	DAFT No. 1 Demolition
163	M-45			DAFT No. 1 General Arrangement
164	M-46		Centrate Management	Centrate Tank and Pump Station Plan
165	M-47			Centrate Tank and Pump Station Sections
166	M-48		General HVAC	H-1 General Notes, Symbols, Abbreviations
167	M-49			H-2 HVAC Schedules (1 sheet)
168	M-50			H-3 HVAC Details
169	I-1	Instrumentation	General	P&ID Symbols and Abbreviations Legend
170	I-2			Instrument Installation Details Drawing
171	I-3		Headworks	Gas Detection System P&ID
172	I-4			Odor Control System P&ID
173	I-5			Washer/Compactor and Grit system P&ID-I
174	I-6			Washer/Compactor and Grit system P&ID-II
175	I-7		Primary Clarification and Pumping	Ferric Chloride Chemical System P&ID
176	I-8		MBR System	MLR Pumps P&ID
177	I-9			Blower system P&ID
178	I-10			Aeration system P&ID
179	I-11		Fine Screens	Fine Screens System P&ID
180	I-12		Digestion	Boilers P&ID
181	I-13		Centrate Management	Centrate Storage and Pumping System P&ID
182	I-14		General I&C	Overall SCADA Architecture Drawing
183	I-15			Overall SCADA System Communication Block Diagram and Details
184	I-16			Fiber Optic Routing /Panel Layout Drawing for new PLC/RIO
185	I-17			Fiber Optic Routing /Panel Layout Drawing for new PLC/RIO

Dwg. No.	Sht No.	Discipline	Area	Drawing Name
186	E-1	Electrical	General	Electrical Symbols
187	E-2			Abbreviation and General Notes
188	E-3			Typical Details 1
189	E-4			Typical Details 2
190	E-5			Typical Details 3
191	E-6			Typical Details 4
192	E-7			Typical Details 5
193	E-8			Lighting Fixture Schedule
194	E-9			Panel Schedule
195	E-10			Conduit Schedule 1
196	E-11			Conduit Schedule 2
197	E-12			Conduit Schedule 3
198	E-13			Conduit Schedule 4
199	E-14			Schematic Diagrams 1 of 6 (exist MCC-C/CA replacement & add MCC-D, MCC-DD, MCC-P, MCC-X I/O to SCADA)
200	E-15			Schematic Diagrams 2 of 6 (exist MCC-C/CA replacement & add MCC-D, MCC-DD, MCC-P, MCC-X I/O to SCADA)
201	E-16			Schematic Diagrams 3 of 6 (exist MCC-C/CA replacement & add MCC-D, MCC-DD, MCC-P, MCC-X I/O to SCADA)
202	E-17			Schematic Diagrams 4 of 6 (exist MCC-C/CA replacement & add MCC-D, MCC-DD, MCC-P, MCC-X I/O to SCADA)
203	E-18			Schematic Diagrams 5 of 6 (exist MCC-C/CA replacement & add MCC-D, MCC-DD, MCC-P, MCC-X I/O to SCADA)
204	E-19			Schematic Diagrams 6 of 6 (for new Centract Pump, MLR Pump, Aeration Mixers & Odor Control Fan)
205	E-20			MCC/ Switchboard Elev Details
206	E-21			MCC/ Switchboard Elev Details
207	E-22			Overall Site Plan (Demolition & New)
208	E-23			Electrical Site Plan - Demolition 1 of 4
209	E-24			Electrical Site Plan - Demolition 2 of 4
210	E-25			Electrical Site Plan - Demolition 3 of 4
211	E-26			Electrical Site Plan - Demolition 4 of 4
212	E-27			Electrical Site Plan 1 of 4
213	E-28			Electrical Site Plan 2 of 4
214	E-29			Electrical Site Plan 3 of 4
215	E-30			Electrical Site Plan 3 of 4
216	E-31			Enlarged Site Plan (Existing Blower Bldg/ Standby Generator Area)

Dwg. No.	Sht No.	Discipline	Area	Drawing Name
217	E-32			Enlarged Site Plan (New SWBD-M Elec Building)
218	E-33			Overall Single Line Diagram - Modification
219	E-34			Single Line Diagram - New SWBD-M (re-feed MCC-OB & MCC-E/MCC-EA & MCC-B/MCC-BA)
220	E-35			Single Line Diagram - MCC-C/ MCC-CA Demolition
221	E-36			Single Line Diagram - New MCC-C/MCC-CA (feed new MCC-C/CA from new SWBD-M and Add new Odor Control System)
222	E-37			Single Line Diagram - MCC-D Modification (re-feed MCC-D from new SWBD-M & add exist MCC-D equipment to SCADA) Note: MCC-D sub-feeds MCC-P
223	E-38			Single Line Diagram - MCC-DD & MCC-P Modification (re-feed MCC-DD from new SWBD-M and add exist MCC-DD & MCC-P equipment to SCADA)
224	E-39			Single Line Diagram - MCC-F/MCC-G/MCC-FA Modification (re-feed MCC-F/MCC-G from new SWBD-M)
225	E-40			Single Line Diagram - MCC-H Modification (re-feed MCC-H from new SWBD-M and add MCC-X equipment to SCADA) Note: MCC-H sub-feeds 240V, 1 phase, 3W MCC-X (below grade sludge pumps/ equipment)
226	E-41			Single Line Diagram - MCC-Y Modification (re-feed MCC-Y from new SWBD-M and add MCC-Y equipment to SCADA)
227	E-42			Single Line Diagram Modification - MCC-ZA for new MLR Pumps, Aeration Basins Mixers & Fine Screen replacement)
228	E-43			Single Line Diagram Modification - MCC-ZB for new MLR Pumps, Aeration Basins Mixers & Fine Screen replacement)
229	E-44			Single Line Diagram Modification - MCC-BA for Aeration Blowers Replacement (Demo & Modification)
230	E-45		Headworks	Gas Detection System and Relocate (E) Air Compressor inside exist MCC room.
231	E-46			New MCC-C/CA Electrical Building - Electrical Plan (pre-fab bldg)
232	E-47			Exist Headwork Electrical Plan (re-feed existing headwork equipment from New MCC-C/MCC-CA) & add exist equipment to SCADA
233	E-48			Exist Headwork Instrument/ Control Plan (re-feed existing headwork devices) & add exist equipment to SCADA
234	E-49			Headwork Area Classification Plan
235	E-50			Exist Primary Clarifier Electrical Plan (re-feed existing primary clarifier equipment from new MCC-C/MCC-CA) & add exist equipment to SCADA
236	E-51			Exist Primary Clarifier Instrument/ Control Plan (re-feed existing primary clarifier devices) & add exist equipment to SCADA

Dwg. No.	Sht No.	Discipline	Area	Drawing Name
237	E-52			Primary Clarifier Area Classification Plan
238	E-53			New Odor Control Electrical Plan
239	E-54			New Odor Control Lighting/ Grounding Plan
240	E-55			Odor Control System Area Classification Plan
241	E-56			Headworks - Washer/Compactor & Grit Washer/Classifier Power/ Grounding Plan
242	E-57			Headworks - Washer/Compactor & Grit Washer/Classifier Signal/ Control Plan
243	E-58		Primary Clarification and Pumping	Provide New Ferric Chloride Dosing PS - Electrical Plan
244	E-59		Aeration Basins and Blower Building	Exist Aeration Basins Electrical Modification Plan 1 of 2 (add MLR, Mixers, DO Probes, Actuators)
245	E-60			Exist Aeration Basins Electrical Modification Plan 2 of 2 (add MLR, Mixers, DO Probes, Actuators)
246	E-61			Exist Aeration Basins Instrument/Control Modification Plan 1 of 2 (add DO Probes, Actuators)
247	E-62			Exist Aeration Basins Instrument/Control Modification Plan 2 of 2 (add DO Probes, Actuators)
248	E-63			New SWBD-M Electrical Building - Power Plan (pre-fab building)
249	E-64			Exist Blower Bldg - Electrical Demolition Plan (demo SWBD-M & Blowers)
250	E-65			Existing Blower Bldg Modification - Power Plan (including new HVAC system)
251	E-66			Existing Blower Bldg Modification - Lighting/ Grounding Plan
252	E-67			Enlarged Details for SWBD-M Replacement
253	E-68		MBR System	Membrane Facility - Fine Screen Electrical Demolition Plan
254	E-69			Membrane Facility - Fine Screen Electrical Plan
255	E-70			Membrane Facility - Fine Screen Lighting/Grounding Plan
256	E-71			Membrane Facility - Fine Screen Area Classification Plan
257	E-72		Effluent Pump Station	Exist Effluent PS Electrical Plan (add process analyzer to SCADA)
258	E-73		Digestion	Boiler Electrical Plan
259	E-74		Centrate Management	Centrate Pump Station Electrical Plan
260	E-75			Centrate Pump Station Lighting Plan

EXHIBIT "B"
PROJECT SCHEDULE

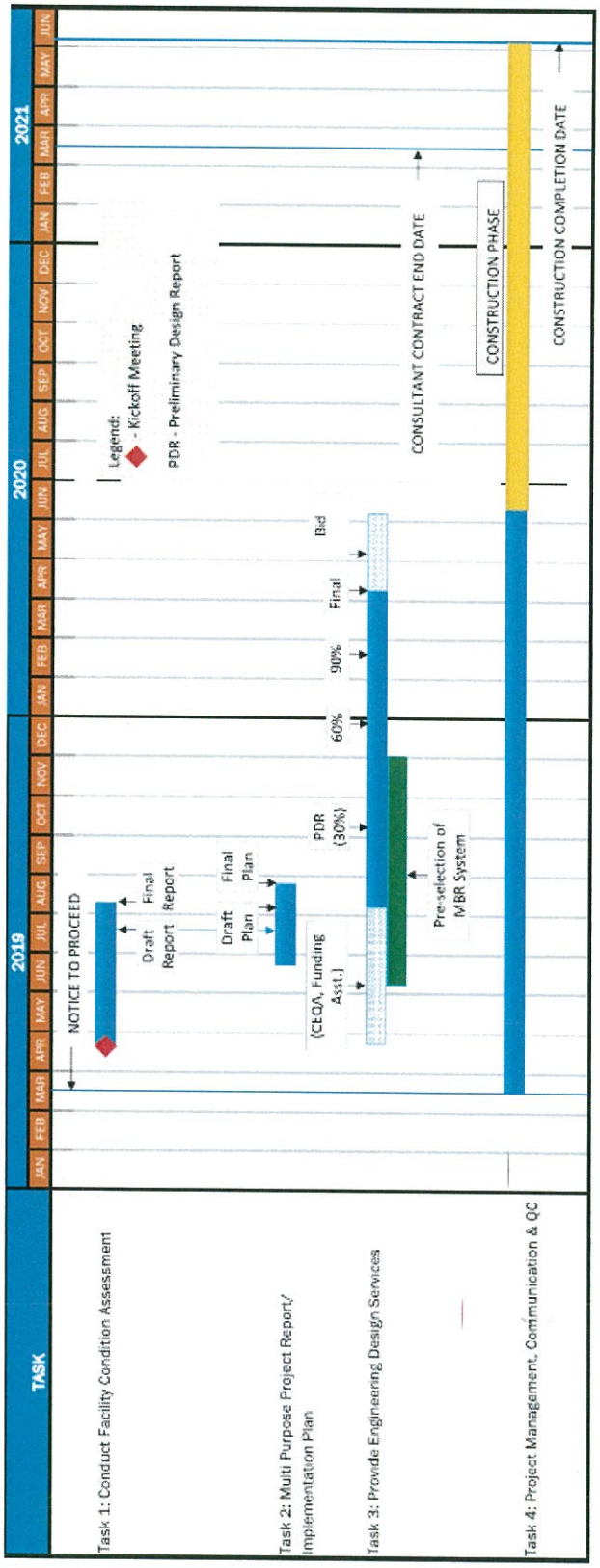

EXHIBIT "C"
COST PROPOSAL

		HOURS BY LABOR CLASSIFICATION																			
		TA/PIC	PM	PE	SE	E	JE	SD	D	PC	Admin										
TASK	DESCRIPTION	A	B	C	D	E	F	G	H	I	J	Total Hours	Labor	Subconsultants					Subs w/ Markup	ODCs	Total
		$280	$238	$220	$185	$155	$132	$138	$105	$190	$85			Rockwell	CWDG	Converse	Coast	Paleo Solutions			
Task 1	CONDUCT FACILITY CONDITION ASSESSMENT																				
1.1	Gather and Review Existing Information and Meet with the O&M Staff	0	8	16	16	16	20	0	0	0	0	76	$13,504	0	0	0	0	0	$0	$270	$13,774
1.2	Perform Comprehensive Facility Condition Assessment																				
1.2.1	Assessment of Key Treatment Processes Performance and Capacities	8	20	24	40	40	60	0	0	0	8	200	$34,480	$0	$0	$0	$0	$0	$0	$690	$35,170
1.2.2	Mechanical Equipment Condition Assessment	0	12	32	40	32	60	0	0	0	20	196	$31,876	$0	$0	$0	$0	$0	$0	$638	$32,514
1.2.3	Major Concrete Structures Condition Assessment	0	8	32	48	0	60	0	0	0	0	148	$25,744	$0	$0	$0	$0	$0	$0	$515	$26,259
1.2.4	Civil Structures Condition Assessment	0	4	16	24	24	0	0	0	0	4	72	$12,972	$0	0	$0	$0	$0	$0	$259	$13,231
1.2.5	Above Ground Pipelines Condition Assessment	0	4	16	24	24	0	0	0	0	4	72	$12,972	$0	0	$0	$0	$0	$0	$259	$13,231
1.2.6	Underground Pipelines Condition Assessment and Routing	0	4	16	24	24	0	0	0	0	4	72	$12,972	$0	0	$0	$0	$0	$0	$9,000	$21,972
1.2.7	Electrical Equipment and Power Supply Condition Assessment	0	4	16	24	24	0	0	0	0	0	68	$12,632	$126,625	0	$0	$0	$0	$132,956	$10,000	$155,588
1.2.8	Energy Consumption and Efficiency Assessment	4	16	8	20	0	8	0	0	0	0	56	$11,444	$0	0	$0	$0	$0	$0	$229	$11,673
1.2.9	Instrumentation and SCADA Condition Assessment	0	16	16	0	40	80	0	0	0	8	160	$24,768	$0	0	$0	$0	$0	$0	$495	$25,263
	Condition Assessment Report	8	16	24	80	0	16	0	16	0	8	168	$30,600	0	0	$0	$0	$0	$0	$612	$31,212
	Subtotal Task 1	20	112	216	340	224	304	0	16	0	56	1,288	$223,964	$126,625	$0	$0	$0	$0	$132,956	$22,967	$379,887
Task 2	DEVELOP MULTIPURPOSE PROJECT REPORT/IMPLEMENTATION PLAN																				
2.1	Develop Project Report, Implementation and CIP Plans	8	32	100	40	40	48	0	0	24	12	304	$57,372	0	0	0	0	0	$0	$1,147	$58,519
	Subtotal Task 2	8	32	100	40	40	48	0	0	24	12	304	$57,372	$0	$0	$0	$0	$0	$0	$1,147	$58,519
Task 3	PROVIDE ENGINEERING DESIGN SERVICES																				
3.1	Provide SRF Loan and Grant Application Support	0	30	0	0	40	40	0	0	0	16	126	$19,980	$0	$0	$0	$0	$0	$0	$400	$20,380
3.2	Prepare and File CEQA Plus and NEPA Documentation for SRF Loan	0	8	12	88	80	24	0	0	0	4	216	$36,732	$0	$0	$0	$0	$15,423	$16,194	$2,000	$54,926
3.3	Conduct Utility Investigation	0	0	4	32	0	20	0	0	0	0	56	$9,440	$0	$0	$0	$0	$0	$0	$189	$9,629
3.4	Conduct Topographical Survey for Design	0	0	2	16	0	0	0	0	0	0	18	$3,400	$0	$0	$0	$20,615	$0	$21,646	$68	$25,114
3.5	Conduct Geotechnical Investigations	0	8	0	16	8	0	0	0	0	0	32	$6,104	$0	$0	$20,425	$0	$0	$21,446	$122	$27,672
3.6	Prepare Preliminary Design (30% Submittal)	25	173	247	395	444	493	444	444	49	173	2,885	$441,080	$0	$0	$0	$0	$0	$0	$8,822	$449,902
3.7	Prepare Preselection RFP and Evaluate MBR System Proposals	16	30	40	0	40	80	0	0	0	16	222	$38,540	$0	$0	$0	$0	$0	$0	$771	$39,311
3.8	Prepare Final Design/Bid Documents																				
	60% Submittal	35	243	347	521	694	590	694	590	174	174	4,061	$631,183	$0	$0	$0	$0	$0	$0	$12,624	$643,807
	90% Submittal	28	197	281	506	619	422	506	506	141	84	3,291	$518,784	$0	$0	$0	$0	$0	$0	$10,376	$529,160
	Final (100%) Submittal	7	51	73	132	162	110	132	110	37	44	859	$135,001	$0	$0	$0	$0	$0	$0	$2,700	$137,701
3.9	Conduct Presentations to Commission/City Council	16	30	30	0	0	40	40	0	0	8	164	$29,700	$0	$0	$0	$0	$0	$0	$594	$30,294
3.10	Prepare Construction Cost Estimates (30%, 60%, 90%, 100%)	0	12	32	120	0	240	0	0	0	0	404	$63,776	$0	$0	$0	$0	$0	$0	$1,276	$65,052
3.11	Provide Bidding Services	0	24	40	24	40	60	32	40	0	8	268	$42,368	$0	$0	$0	$0	$0	$0	$847	$43,215
3.12	Landscape Architectural Services	0	10	16	0	40	0	0	0	0	0	66	$12,100	$0	$32,295		$0	$0	$33,910	$242	$46,252
	Subtotal Task 3	127	816	1,124	1,850	2,166	2,119	1,849	1,690	400	527	12,668	$1,988,188	$0	$32,295	$20,425	$20,615	$15,423	$93,196	$41,031	$2,122,415
Task 4	PROJECT MANAGEMENT, COMMUNICATION AND QUALITY CONTROL																				
4.1	Project Management and Prepare Project Management Plan	0	200	144	100	80	40	0	0	40	98	702	$131,390	$0	$0	$0	$0	$0	$0	$2,628	$134,018
4.2	Conduct Project Kickoff Meeting	4	8	8	8	0	0	0	0	0	2	30	$6,434	$0	$0	$0	$0	$0	$0	$129	$6,563
4.3	Coordinate Monthly Project Meetings (7) and Biweekly Conference Calls (15)	0	50	50	50	24	0	0	0	0	10	184	$36,720	$0	$0	$0	$0	$0	$0	$734	$37,454
4.4	Provide Monthly Project Progress Reports (12)	0	24	24	24	0	0	0	0	0	0	72	$15,432	$0	$0	$0	$0	$0	$0	$309	$15,741
4.5	Conduct Condition Assessment and Design Submittal Review Workshops (5)	0	64	64	64	32	64	0	0	0	20	308	$56,260	$0	$0	$0	$0	$0	$0	$1,125	$57,385
4.6	Provide Quality Control	70	60	60	40	0	0	0	0	0	0	230	$54,480	$0	$0	$0	$0	$0	$0	$1,090	$55,570
	Subtotal Task 4	74	406	350	286	136	104	0	0	40	130	1,526	$300,716	$0	$0	$0	$0	$0	$0	$6,015	$306,731
	GRAND TOTAL	229	1,366	1,790	2,516	2,566	2,575	1,849	1,706	464	725	15,786	$2,570,240	$126,625	$32,295	$20,425	$20,615	15,423	$226,152	$71,160	$2,867,552

Labor Classifications

A = Technical Advisor and Principal-in-Charge
B = Project Manager
C = Project Engineer
D = Supervising Engineer
E = Engineer
F = Junior Engineer
G = Senior Designer
H = Designer
I = Scheduler/Cost Estimator/Project Control
J = Administrative Support Staff/Word Processing

Subconsultants and Their Roles

Rockwell - Electrical and Instrumentation/Controls Condition Assessment
CWDG - Landscape Architecture Design
Converse - Geotechnical Investigation and Water Pump Testing
Coast - Topographical Surveying
Paleo Solutions - Cultural Resources Study

EXHIBIT "D"

WORKERS' COMPENSATION INSURANCE CERTIFICATION

Every employer, except the State, shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this State.

(b) By securing from the Director of Industrial Relations, a certificate of consent to self-insure, either as an individual employer, or as one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees.

CHECK ONE

X I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self- insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work and activities required or permitted under this Agreement. (Labor Code §1861).

_____I affirm that at all times, in performing the work and activities required or permitted under this Agreement, I shall not employ any person in any manner such that I become subject to the workers' compensation laws of California. However, at any time, if I employ any person such that I become subject to the workers' compensation laws of California, immediately I shall provide the City with a certificate of consent to self-insure, or a certification of workers' compensation insurance.

I certify under penalty of perjury under the laws of the State of California that the information and representations made in this certificate are true and correct.

PARSONS WATER & INFRASTRUCTURE, INC. Date: 8/5/2019

By:_____
Surendra Thakral, Senior Vice President

CITY OF REDLANDS
REQUEST FOR ADDITIONAL APPROPRIATION

DATE OF REQUEST: 10/3/2022

FINANCE USE ONLY
TRANSACTION NO:
ACCOUNTING PERIOD:

An additional appropriation is hereby requested as follows:

Department: MUED

EXPENDITURE APPROPRIATION INCREASE (if applicable)				
Account Description	**Orgkey**	**Object Code**	**Job Ledger (If applicable)**	**Amount**
WWTP Modifications	521910	8401		$ 404,528.00
				$ $ 404,528.00

REVENUE APPROPRIATION INCREASE (if applicable)				
Account Description	**Orgkey**	**Object Code**	**Job Ledger (If applicable)**	**Amount**
				$ $ 0.00

JUSTIFICATION: To facilitate additional funding for the comprehensive design services for Phase 2 of the Wastewater Treatment Plant.

Requested By: _____
Department Head

Recommended By Finance Director:

Yes _____ No _____ Signed _____

Comments: _____

Recommended: _____
City Manager

Approved by City Council:

Date: _____

Signed: _____
City Clerk

City Council Meeting **L. 7.**

DATE: 11/15/2022

TO: Honorable Mayor and City Council Members

SUBJECT: Consideration of the non-professional service agreement with Kirtley Construction, Inc. for on-call wastewater collection system repair and construction services on an as-needed basis for an amount not-to-exceed $750,000, and determination that this action is exempt from environmental review pursuant to section 15301(b) of the State's guidelines implementing the California Environmental Quality Act (Municipal Utilities and Engineering Director Harris)

MOTION(S):

If City Council determines the staff recommendation is appropriate, the following motions are provided:

1. I move that City Council determine approval of a non-professional service agreement with Kirtley Construction, Inc. is exempt from environmental review pursuant to section 15301(b) of the State's guidelines implementing the California Environmental Quality Act; and

2. I further move to approve the non-professional service agreement with Kirtley Construction Inc. for on-call wastewater collection system repair and construction services on an as-needed basis for an amount not-to-exceed $250,000 for the initial one (1) year term with the option to extend the agreement for two (2) additional one (1) year terms at $250,000 each year.

RECOMMENDATION:

Staff recommends that City Council determine approval of the non-professional services agreement with Kirtley Construction, Inc. is exempt from environmental review pursuant to section 15301(b) of the State's guidelines implementing the California Environmental Quality Act, and approve the non-professional service agreement with Kirtley Construction, Inc. for an annual amount not-to-exceed $250,000 for a potential total amount not-to-exeed $750,000.

DISCUSSION:

In accordance with California State Water Resource Control Order No. 2006-0003 DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems under Waste Discharge Identification Number 8SSO10558, the City is required to operate and maintain a wastewater collection system to convey untreated wastewater to the City's wastewater treatment plant. Preventive maintenance and repairs of this system are necessary to avoid service interruptions, protect city assets, promote public health and safety, and protect the environment. Occassionally, emergency repairs and construction activities that exceed the City staff's capacity are required and quick support from a utility pipeline contractor significantly reduces risk for the City.

In accordance with Redlands Municipal Code 2.16.180, staff issued a Request for Bids (RFB) for wastewater collection system maintenance and repair services on an as-need basis in early May 2022. The RFB requested unit prices for single quantities of typical services for bid comparison only. No minimum quantity or value of work is guaranteed and actual costs will be determined as services are needed throughout the year. The selected contractor is required to be available twenty-four (24) hours a day and must mobilize for emergency work within two (2) hours of notification. The City Clerk's office received the following two (2) proposals on May 24, 2022:

VENDOR	LOCATION	BID
MCC Pipeline, Inc.	Yucaipa, CA	$352,729.28
Kirtley Construction, Inc.	San Bernardino, CA	$1,903,000.00

Although MCC Pipeline, Inc submitted the apparent lowest bid, a mathematical error was identified and the company elected to withdraw it's bid in accordance with Section 5103 of the California Public Contract Code. Staff reviewed the bid submitted by Kirley Construction, Inc. and determined it was accurate and responsive. Staff recommends City Council approval of the non-professional services agreement with Kirtley Construction, Inc. with an initial term of one (1) year for a not-to-exceed value of $250,000. If approved, the Agreement may be extended for two (2) additional one (1) year periods with annual not-to-exceed values of $250,000 for a total potential Agreement value of $750,000.

Approval of the non-professional service agreement with Kirtley Construction, Inc. is exempt from environmental review pursuant to section 15301(b) of the State's guidelines implementing the California Environmental Quality Act (CEQA), which exempts maintenance and repair of public utility systems.

ALTERNATIVES:

City Council may deny the staff recommendation and provide alternate direction.

STRATEGIC PLAN:

N/A

SUBMITTED BY:
John R. Harris, Municipal Utilities and Engineering Director

RECOMMENDED BY:
Charles M. Duggan Jr., City Manager

REVIEWED BY:
Yvette M. Abich Garcia, City Attorney
Janice McConnell, Assistant City Manager

PREPARED BY:
Fernando Mata, Wastewater Operations Superintendent

Fiscal Impact

Fiscal Year:	FY 22/23
Revenue Generating:	No
Appropriation Required Y/N:	N
Amount:	$750,000
Budgeted Y/N:	Y
Account No.:	521900

Discussion:

There is no fiscal impact associated with this action. This service is included in the FY 22/24 Wastewater Service Fund budget.

Attachments

A. Service Agreement
B. Bid Report
C. Bid Proposal

AGREEMENT TO PERFORM NON-PROFESSIONAL SERVICES FOR IMPROVEMENT TO PUBLIC BUILDINGS AND GROUNDS

This agreement for the provision of on-call sewer collection system repair & construction services ("Agreement") is made and entered in this 15th day of November, 2022 ("Effective Date"), by and between the City of Redlands, a municipal corporation ("City") and Kirtley Construction, Inc. ("Contractor"). City and Contractor are sometimes individually referred to herein as a "Party" and, together, as the "Parties." In consideration of the mutual promises contained herein, City and Contractor agree as follows:

ARTICLE 1 – ENGAGEMENT OF CONTRACTOR

1.1 City hereby engages Contractor to perform on-call sewer collection system repair & construction services services for City (the "Services"). The Services that Contractor shall perform are more particularly described in Exhibit "A," titled "Scope of Services," which is attached hereto and incorporated herein by this reference.

1.2 The Services shall be performed by Contractor in a professional manner, and Contractor represents that it has the skill and the professional expertise necessary to provide the Services to City at a level of competency presently maintained by other practicing professional Contractors in the industry providing like and similar types of Services.

ARTICLE 2 – RESPONSIBILITIES OF CONTRACTOR

2.1 Contractor shall comply with all applicable federal, state and local laws and regulations in the performance of the Services including, but not limited, to all applicable Labor Code and prevailing wage laws and non-discrimination laws, including the Americans with Disabilities Act. Pursuant to Labor Code section 1773.2, copies of the prevailing rates of per diem wages as determined by the Director of the California Department of Industrial Relations for each craft, classification or type of worker needed to undertake the Services are on file at City's Municipal Utilities and Engineering Department, located at the Civic Center, 35 Cajon Street, Suite 15A (Mailing: P.O. Box 3005), Redlands, California 92373.

2.2 Contractor acknowledges that if it violates the Labor Code provisions relating to prevailing wages that City may enforce such provisions by withholding payments to Contractor or its subcontractors pursuant to Labor Code section 1771.6.

2.3 If Contractor executes an agreement with a subcontractor to perform any portion of the Services, Contractor shall comply with Labor Code sections 1775 and 1777.7, and shall provide the subcontractor with copies of the provisions of Labor Code sections 1771, 1775, 1776, 1777.5, 1813 and 1815. Contractor acknowledges that the statutory provisions establishing penalties for failure to comply with state wage and hour laws and to pay prevailing wages may be enforced by City pursuant to Labor Code sections 1775 and 1813.

2.4 Contractor and its subcontractors shall comply with the provisions of Labor Code section 1776 regarding payroll records maintenance, certifications, retention and inspection.

2.5 Contractor acknowledges that eight (8) hours constitutes a legal day's work pursuant to Labor Code section 1810.

2.6 Contractor shall comply with the provisions of Labor Code section 1777.5 as to apprenticeships, and Labor Code sections 1771, 1775, 1776, 1777.5, 1813 and 1815.

2.7 Pursuant to Public Contract Code section 7103.5(b), Contractor offers and agrees to assign to City all rights, title and interest in and to all causes of action it may have under section 4 of the Clayton Act (15 U.S.C. section 15) or under the Cartwright Act (Chapter 2 (commencing with section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, goods or materials pursuant to this Agreement.

ARTICLE 3 – RESPONSIBILITIES OF CITY

3.1 City shall make available to Contractor information in its possession that may reasonably assist Contractor in performing the Services.

3.2 City designates John R. Harris, Municipal Engineering and Utilities Department, as City's representative with respect to performance of the Services, and such person shall have the authority to transmit instructions, receive information, interpret and define City's policies and decisions with respect to performance of the Services.

ARTICLE 4 – PERFORMANCE OF SERVICES

4.1 The Services shall commence as of the Effective Date of this Agreement. Contractor shall perform and complete the Services in a prompt and diligent manner in accordance with the schedule set forth in Exhibit "A," which is attached hereto and incorporated herein by this reference.

4.2 The term of this Agreement shall be for a period of one (1) year from the Effective Date of this Agreement (the "Initial Term"). The City shall have the option to extend the Initial Term of this Agreement by two (2) additional one-year terms (each, an "Extended Term"), on the same terms and conditions, by providing written notice to Contractor at least thirty (30) days prior to the expiration of the Initial Term or any Extended Term. The Initial Term and the Extended Terms are hereby collectively, referred to herein as the "Term" of this Agreement.

4.3 Contractor shall furnish a labor and material bond in the form attached hereto as Exhibit "B," which is attached hereto and incorporated herein by this reference, in an amount equal to one hundred percent (100%) of the total compensation to be paid to Contractor pursuant to this Agreement.

ARTICLE 5 – PAYMENTS TO CONTRACTOR

5.1 The compensation for Contractor's performance of the Services shall not exceed the amount of [two hundred fifty thousand dollars] ($250,000) for the Services provided

during the Initial Term. Should this Agreement be renewed, the compensation for Contractor's performance for the Services shall not exceed the amount of [two hundred fifty thousand dollars] ($250,000) for the first Extended Term; and [two hundred fifty thousand dollars] ($250,000) for the second Extended Term, bringing the total possible amount of compensation to a not-to-exceed amount of [seven hundred and fifty thousand dollars] ($750,000). For the Initial Term and each Extended Term, City shall pay Contractor on a time and materials basis up to the not to not-to-exceed amount in accordance with the rates specified in Exhibit "C," titled "Price and Fee Bid," which is attached hereto and incorporated herein by reference.

5.2 Contractor shall submit an invoice to City upon completion of the Services. City shall pay Contractor no later than thirty (30) days after receipt and approval by City of Contractor's invoice.

5.3 Any notice or other communication required, or which may be given, pursuant to this Agreement, shall be in writing. Any such notice shall be deemed delivered (i) on the date of delivery in person; (ii) five (5) days after deposit in first class registered mail, with return receipt requested; (iii) on the actual delivery date if deposited with an overnight courier; or (iv) on the date sent by facsimile or electronic mail transmission (including PDF), if confirmed with a copy sent contemporaneously by first class, certified, registered or express mail; in each case properly posted and fully prepaid to the appropriate address set forth below, or such other address as a Party may provide notice in accordance with this section:

CITY	CONTRACTOR
City Clerk	Troy Kirtley, President
City of Redlands	Kirtley Construction, Inc.
35 Cajon Street	P.O. Box 9608
P.O. Box 3005 (mailing)	San Bernardino, CA 92427
Redlands, CA 92373	tntkirtley@msn.com
jdonaldson@cityofredlands.org	(909)473-8739
(909) 798-7531	(909)473-3067

ARTICLE 6 – INSURANCE AND INDEMNIFICATION

6.1 The following insurance coverage required by this Agreement shall be maintained by Contractor for the duration of its performance of the Services. Contractor shall not perform any Services unless and until the required insurance listed below is obtained by Contractor. Contractor shall provide City with certificates of insurance and endorsements evidencing such insurance prior to commencement of the Services. Insurance policies shall include a provision prohibiting cancellation or modification of the policy except upon thirty (30) days prior written notice to City.

A. Workers' Compensation and Employer's Liability insurance in the amount that meets statutory requirements with an insurance carrier acceptable to City, or certification to City that Contractor is self-insured or exempt from the workers' compensation laws

of the State of California. Contractor shall execute and provide City with Exhibit "D," titled "Workers' Compensation Insurance Certification," which is attached hereto and incorporated herein by this reference, prior to performance of the Services.

B. Comprehensive General Liability insurance with carriers acceptable to City in the minimum amount of One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) aggregate, for public liability, property damage and personal injury is required. City shall be named as an additional insured and such insurance shall be primary and non-contributing to any insurance or self-insurance maintained by City.

C. Business Auto Liability coverage, with minimum limits of One Million Dollars ($1,000,000) per occurrence, combined single limit bodily injury liability and property damage liability. This coverage shall include all Contractor owned vehicles used in connection with Contractor's provision of the Services, hired and non-owned vehicles, and employee non-ownership vehicles. City shall be named as an additional insured and such insurance shall be primary and non-contributing to any insurance or self-insurance maintained by City.

6.2 Contractor shall defend, indemnify, and hold harmless City and its elected and appointed officials, employees and agents from and against any and all claims, losses and liability, including attorneys' fees, arising from injury or death to persons or damage to property occasioned by any negligent act or omission by, or the willful misconduct of, Contractor, or its officers, employees and agents in performing the Services.

ARTICLE 7 – CONFLICTS OF INTEREST

7.1 Contractor covenants and represents that it does not have any investment or interest in any real property that may be the subject of this Agreement or any other source of income, interest in real property or investment that would be affected in any manner or degree by the performance of Contractor's Services. Contractor further covenants and represents that in the performance of its duties hereunder, no person having any such interest shall perform any Services under this Agreement.

7.2 Contractor agrees it is not a designated employee within the meaning of the Political Reform Act because Contractor:

A. Does not make a governmental decision whether to:

(i) approve a rate, rule or regulation, or adopt or enforce a City law;
(ii) issue, deny, suspend or revoke any City permit, license, application, certification, approval, order or similar authorization or entitlement;
(iii) authorize City to enter into, modify or renew a contract;
(iv) grant City approval to a contract that requires City approval and to which City is a party, or to the specifications for such a contract;
(v) grant City approval to a plan, design, report, study or similar item;
(vi) adopt, or grant City approval of, policies, standards or guidelines for City or for any subdivision thereof.

B. Does not serve in a staff capacity with City and in that capacity, participate in making a governmental decision or otherwise perform the same or substantially the same duties for City that would otherwise be performed by an individual holding a position specified in City's Conflict of Interest Code under Government Code section 87302.

7.3 In the event City determines that Contractor must disclose its financial interests, Contractor shall complete and file a Fair Political Practices Commission Form 700, Statement of Economic Interests, with the City Clerk's office pursuant to the written instructions provided by the City Clerk.

ARTICLE 8 – GENERAL CONSIDERATIONS

8.1 In the event any action is commenced to enforce or interpret any of the terms or conditions of this Agreement the prevailing Party shall, in addition to any costs and other relief, be entitled to the recovery of its reasonable attorneys' fees, including fees for the use of in-house counsel by a Party.

8.2 Contractor shall not assign any of the Services, except with the prior written approval of City and in strict compliance with the terms and conditions of this Agreement. Any assignment or attempted assignment without such prior written consent may, in the sole discretion of City, results in City's immediate termination of this Agreement.

8.3 Contractor is for all purposes under this Agreement an independent contractor and shall perform the Services as an independent contractor. Neither City nor any of its agents shall have control over the conduct of Contractor or Contractor's employees, except as herein set forth. Contractor shall supply all necessary tools and instrumentalities required to perform the Services. Assigned personnel employed by Contractor are for its account only, and in no event shall Contractor or personnel retained by it be deemed to have been employed by City or engaged by City for the account of, or on behalf of City. Contractor shall have no authority, express or implied, to act on behalf of City in any capacity whatsoever as an agent, nor shall Contractor have any authority, express or implied, to bind City to any obligation.

8.4 This Agreement may be terminated by City, in its sole discretion, by providing not less than five (5) days prior written notice to Contractor of City's intent to terminate. If this Agreement is terminated by City, an adjustment to Contractor's compensation shall be made, but (i) no amount shall be allowed for anticipated profit or unperformed Services, and (ii) any payment due Contractor at the time of termination may be adjusted to the extent of any additional costs to City occasioned by any default by Contractor. Upon receipt of a termination notice, Contractor shall immediately discontinue its provision of the Services and, within five (5) days of the date of the termination notice, deliver or otherwise make available to City, copies (in both hard copy and electronic form, where applicable) of project related data, design calculations, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by Contractor in performing the Services. Contractor shall be compensated on a pro-rata basis for Services completed up to the date of termination.

8.5 Contractor shall maintain books, ledgers, invoices, accounts and other records and documents evidencing costs and expenses related to the Services for a period of three (3) years, or for any longer period required by law, from the date of final payment to Contractor pursuant to this Agreement. Such books shall be available at reasonable times for examination by City at the office of Contractor.

8.6 This Agreement, including the Exhibits incorporated herein by reference, represents the entire agreement and understanding between the Parties as to the matters contained herein, and any prior negotiations, written proposals or verbal agreements relating to such matters are superseded by this Agreement. Except as otherwise provided for herein, any amendment to this Agreement shall be in writing, approved by City and signed by City and Contractor.

8.7 This Agreement shall be governed by and construed in accordance with the laws of the State of California, without regard to its conflicts of laws provisions. The Parties agree that all actions or proceedings arising in connection with this Agreement shall be tried and litigated only in the state courts located in San Bernardino County, California, and the federal courts located in Riverside County, California.

8.8 If one or more of the sentences, clauses, paragraphs or sections contained in this Agreement is declared invalid, void or unenforceable by a court of competent jurisdiction, the same shall be deemed severable from the remainder of this Agreement and shall not affect, impair or invalidate the remaining sentences, clauses, paragraphs or sections contained herein, unless to do so would deprive a Party of a material benefit of its bargain under this Agreement.

IN WITNESS WHEREOF, duly authorized representatives of City and Contractor have signed in confirmation of this Agreement.

CITY OF REDLANDS	Kirtley Construction, Inc.
By: _____	By: _____
Paul T. Barich, Mayor	Troy Kirtley, President

ATTEST:

_____

Jeanne Donaldson, City Clerk

EXHIBIT "A"

SCOPE OF SERVICES

The work to be performed consist of furnishing all labor, equipment, and material necessary to complete the requested service for the City as required by the Standard Drawings in the City of Redlands' Sanitary Sewer Systems Standard Specifications. City's Sewer pipe material & length listed on **Table ES.2**

https://www.cityofredlands.org/sites/main/files/fileattachments/pw_standards_spec_2020.pdf?1606863175

Services may include but are not limited to:

- Main line sewer replacement of various sizes and material using SDR-35 pipe.
- Main line sewer spot repair of various sizes and material using SDR-35 pipe.
- Manhole invert flow line repair
- Manhole ring and cover repair and replacement (City to provide manhole ring and cover).
- Uncover and raise manholes
- Repair and install manhole bench, shaft, and cone
- Contractor to furnish all equipment, material, and personnel to perform sewer bypass (i.e., set up/take down) and maintain the bypass throughout the entire duration of repairs;
- Contractor must be able to conduct traffic control procedures at job site in roadways and pedestrian walkways at the job site during all phases of work. This includes access to all traffic control devices , and compliance per the California Manual on Uniform Traffic Control Devices (CA MUTCD)
- All work to be performed in a safe manner, using the appropriate personal protective equipment and in accordance with the City's safety practices and CAL-OSHA standards
- Upon request, prepare, and submit for approval and acceptance, an Overflow Response Plan specific to the task and in accordance with the City's Overflow Emergency Response Plan;
- Contractor to provide estimate price. True cost will be based on time & material per job site by Contractor and approved by the City.
- Contractor is responsible for complete cleanup of job site immediately upon completion of project.
- Contractor shall maintain throughout the life of the contract a valid contractor license issued by the California Contractor State License Board, and having appropriate class and classification for the types of services required by this contract include Class A General Engineering, C34 Pipeline, and/or C42 Sanitation Systems
- Contractor must be available 24-hours a day, 7 days a week, and be able to respond onsite within 2-hours for an emergency call out
- Contractor must be within 30 miles from the City of Redlands Municipal Utilities & Engineering Department: 35 Cajon St. Suite 15A, Redlands CA 92373

Figure ES.1: Sewer Collection System

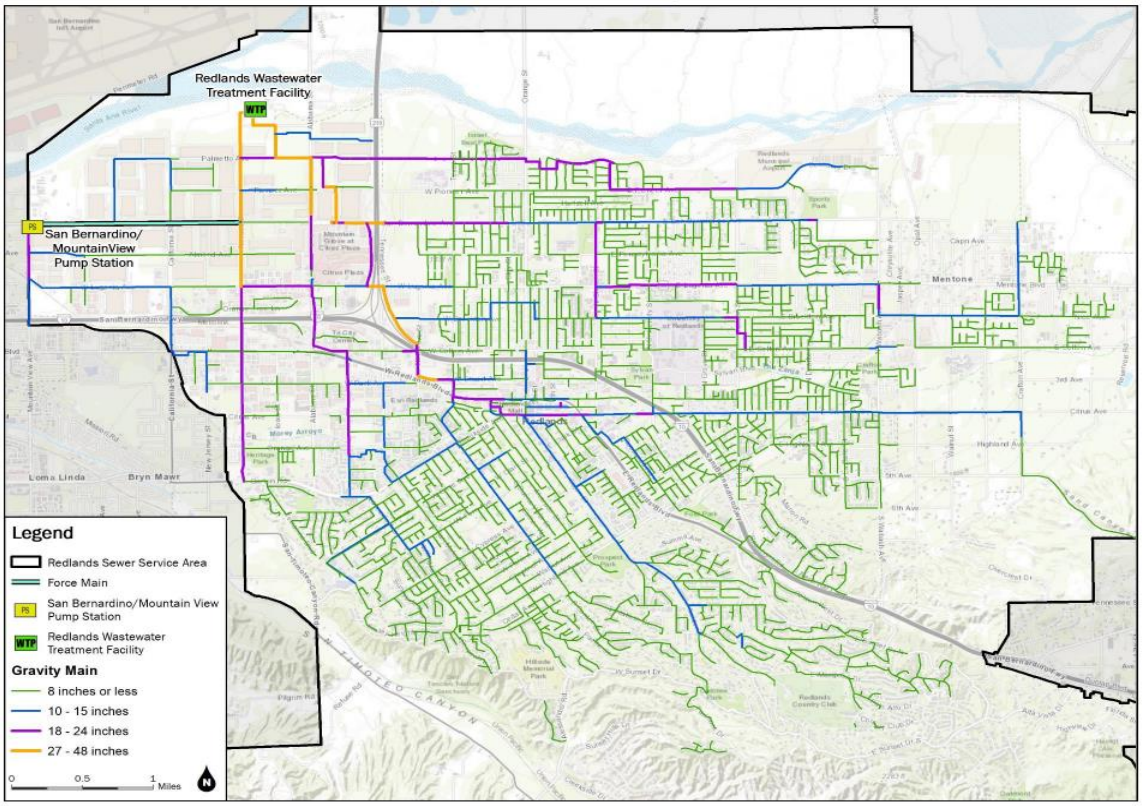

Table ES.2

Size	Material		Length (ft.)
4"			
	Vitrified Clay Pipe		1910.47
	Unknown		532.67
		Total	2443.14
6"			
	PVC		379.45
	Vitrified Clay Pipe		31828.09
		Total	32207.54
8"			
	Asbestos Coated Pipe		1096.46
	Cast Iron		809.5
	Ductile Iron		4225.45
	PVC		200844.2
	Truss Pipe		1853.04
	Vitrified Clay Pipe		234013.17
	Unknown		6988.63
		Total	449830.45
10"			
	Concrete		1148.12
	Ductile Iron		662.64
	PVC		350.04
	Vitrified Clay Pipe		32546.39
		Total	34707.19

12"			
	Cast Iron		1627.02
	PVC		4574.92
	Truss Pipe		1317.96
	Vitrified Clay Pipe		56755.83
		Total	64275.73
14"			
	Ductile Iron		30.4
	Vitrified Clay Pipe		626.1
	Unknown		3
		Total	659.5
15"			
	PVC		12103.75
	Vitrified Clay Pipe		45310.53
	Unknown		10
		Total	57424.28
18"			
	Ductile Iron		219.37
	Epoxy Lined and Coated Steel		671.27
	PVC		1010.78
	Vitrified Clay Pipe		43135.05
		Total	45036.47
20"			
	Epoxy Lined and Coated Steel		663.51
	Vitrified Clay Pipe		2180.28
		Total	2843.79
21"			
	Vitrified Clay Pipe		141117.3
		Total	141117.3
24"			
	Ductile Iron		358.13
	Vitrified Clay Pipe		16588.33
		Total	16946.46
27"			
	Epoxy Lined and Coated Steel		2337.67
	Vitrified Clay Pipe		2137.77
		Total	4475.44
30"			
	Ductile Iron		1471.37
	Epoxy Lined and Coated Steel		1323.83
	Vitrified Clay Pipe		9329.59
		Total	12124.79
36"			
	Vitrified Clay Pipe		130.31
		Total	130.31
48"			
	Reinforced Concrete Pipe		1432.34
		Total	1432.34

EXHIBIT "B"

LABOR AND MATERIAL BOND

Whereas, the City of Redlands, State of California, and Kirtley Construction, Inc.(hereinafter designated as "Principal") have entered into an agreement (the "Agreement") whereby Principal agrees to on-call sewer collection system repair & construction services (the "Work"), which said agreement, dated November 15, 2022, and titled as "Agreement to Perform Non-Professional Services for Improvement to Public Builds and Grounds" is hereby referred to and made a part hereof; and

Whereas, under the terms of the Agreement, Principal is required before commencing the performance of the Work, to file a good and sufficient Labor and Material bond with the City of Redlands to secure the claims to which reference is made in Title 3 (commencing with Section 9550) of Part 6 of Division 4 of the Civil Code of the State of California.

Now, therefore, said Principal and the undersigned as corporate surety, are held firmly bound unto the City and all contractors, subcontractors, laborers, material men and other persons employed in the performance of the Agreement and referred to in the aforesaid Code of Civil Procedure in the sum of Seven Hundred and Fifty Thousand Dollars ($750,000) for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, that said surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees, including reasonable attorneys' fees, incurred by the City in successfully enforcing such obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall insure to the benefit of any and all persons, companies and corporations entitled to file claims under Title 3 (commencing with Section 9550) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect.

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition.

In witness whereof, this instrument has been duly executed by the Principal and surety above named, on _____, 20__.

(SEAL)	(SEAL)
_____	_____
(Contractor)	(Surety) BY:
_____	_____
(Signature)	(Signature)
	Address: _____ _____
(Seal and Notarial Acknowledgment of Surety)	Telephone( ) _____

EXHIBIT "C"

(

ITEM	DESCRIPTION	Unit of Measure	Unit Price
1	Raise Sewer Manhole	each	$ 5,000.00
2	Uncover and Raise Sewer Manhole	each	$ 5,000.00
3	Repair Invert Flow Line of Manhole	each	$ 5,000.00
4	Repair Manhole Bench	each	$ 5,000.00
5	Install Manhole Bench	each	$ 5,000.00
6	Repair Manhole Shaft and Cone	each	$ 5,500.00
7	Replace Manhole Ring and Cover (City to Supply Ring & Cover)	each	$ 3,500.00
8	Install new Manhole (City to supply Ring & Cover)	each	$ 20,000.00
9	Main Sewer Line Spot Repair with 4" SDR-35 @ 3'-8' depth	per linear foot	$ 16,000.00
10	Main Sewer Line Spot Repair with 4" SDR-35 @ 8'-15' depth	per linear foot	$ 20,000.00
11	Main Sewer Line Spot Repair with 6" SDR-35 @ 3'-8' depth	per linear foot	$ 18,000.00
12	Main Sewer Line Spot Repair with 6" SDR-35 @ 8'-15' depth	per linear foot	$ 22,000.00
13	Main Sewer Line Spot Repair with 8" SDR-35 @ 3'-8' depth	per linear foot	$ 20,000.00
14	Main Sewer Line Spot Repair with 8" SDR-35 @ 8'-15' depth	per linear foot	$ 30,000.00
15	Main Sewer Line Spot Repair with 10" SDR-35 @ 3'-8' depth	per linear foot	$ 22,000.00
16	Main Sewer Line Spot Repair with 10" SDR-35 @ 8'-15' depth	per linear foot	$ 35,000.00
17	Main Sewer Line Spot Repair with 12" SDR-35 @ 3'-8' depth	per linear foot	$ 23,000.00
18	Main Sewer Line Spot Repair with 12" SDR-35 @ 8'-15' depth	per linear foot	$ 36,000.00
19	Main Sewer Line Spot Repair with 15" SDR-35 @ 3'-8' depth	per linear foot	$ 25,000.00
20	Main Sewer Line Spot Repair with 15" SDR-35 @ 8'-15' depth	per linear foot	$ 37,000.00
21	Main Sewer Line Spot Repair with 18" SDR-35 @ 3'-8' depth	per linear foot	$ 25,000.00
22	Main Sewer Line Spot Repair with 18" SDR-35 @ 8'-15' depth	per linear foot	$ 38,000.00
23	Main Sewer Line Spot Repair with 20" SDR-35 @ 3'-8' depth	per linear foot	$ 35,000.00
24	Main Sewer Line Spot Repair with 20" SDR-35 @ 8'-15' depth	per linear foot	$ 46,000.00
25	Main Sewer Line Spot Repair with 24" SDR-35 @ 3'-8' depth	per linear foot	$ 45,000.00
26	Main Sewer Line Spot Repair with 24" SDR-35 @ 8'-15' depth	per linear foot	$ 55,000.00
27	Main Sewer Line Spot Repair with 27" SDR-35 @ 3'-8' depth	per linear foot	$ 55,000.00
28	Main Sewer Line Spot Repair with 27" SDR-35 @ 8'-15' depth	per linear foot	$ 65,000.00
29	Main Sewer Line Spot Repair with 30" SDR-35 @ 3'-8' depth	per linear foot	$ 65,000.00

30	Main Sewer Line Spot Repair with 30” SDR-35 @ 8'-15' depth	per linear foot	$ 75,000.00
31	Main Sewer Line Spot Repair with 36” SDR-35 @ 3'-8' depth	per linear foot	$ 75,000.00
32	Main Sewer Line Spot Repair with 36” SDR-35 @ 8'-15' depth	per linear foot	$ 85,000.00
33	Main Sewer Line Spot Repair with 48” SDR-35 @ 3'-8' depth	per linear foot	$ 85,000.00
34	Main Sewer Line Spot Repair with 48” SDR-35 @ 8'-15' depth	per linear foot	$ 95,000.00
35	Main Sewer Line Replacement with 4” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 10,000.00
36	Main Sewer Line Replacement with 4” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 12,000.00
37	Main Sewer Line Replacement with 6” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 11,000.00
38	Main Sewer Line Replacement with 6” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 13,000.00
39	Main Sewer Line Replacement with 8” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 12,000.00
40	Main Sewer Line Replacement with 8” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 14,000.00
41	Main Sewer Line Replacement with 10” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 13,000.00
42	Main Sewer Line Replacement with 10” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 15,000.00
43	Main Sewer Line Replacement with 12” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 14,000.00
44	Main Sewer Line Replacement with 12” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 16,000.00
45	Main Sewer Line Replacement with 15” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 20,000.00
46	Main Sewer Line Replacement with 15” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 25,000.00
47	Main Sewer Line Replacement with 18” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 20,000.00
48	Main Sewer Line Replacement with 18” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 25,000.00
49	Main Sewer Line Replacement with 20” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 30,000.00
50	Main Sewer Line Replacement with 20” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 35,000.00
51	Main Sewer Line Replacement with 24” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 35,000.00
52	Main Sewer Line Replacement with 24” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 37,000.00
53	Main Sewer Line Replacement with 27” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 35,000.00
54	Main Sewer Line Replacement with 27” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 37,000.00
55	Main Sewer Line Replacement with 30” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 35,000.00
56	Main Sewer Line Replacement with 30” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 37,000.00
57	Main Sewer Line Replacement with 36” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 35,000.00
58	Main Sewer Line Replacement with 36” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 37,000.00
59	Main Sewer Line Replacement with 48” SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 38,000.00

60	Main Sewer Line Replacement with 48” SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 40,000.00
61	Sewer Bypass Set-Up, Monitoring and Take Down	daily rate	$ 50,000.00
TOTAL SUM BID (1 through 61)			$ 1,903,000.00

EXHIBIT "D"

WORKERS' COMPENSATION INSURANCE CERTIFICATION

Every employer, except the State, shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this State.

(b) By securing from the Director of Industrial Relations, a certificate of consent to self-insure, either as an individual employer, or as one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees.

CHECK ONE

_____I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work and activities required or permitted under this Agreement. (Labor Code §1861).

_____I affirm that at all times, in performing the work and activities required or permitted under this Agreement, I shall not employ any person in any manner such that I become subject to the workers' compensation laws of California. However, at any time, if I employ any person such that I become subject to the workers' compensation laws of California, immediately I shall provide the City with a certificate of consent to self-insure, or a certification of workers' compensation insurance.

I certify under penalty of perjury under the laws of the State of California that the information and representations made in this certificate are true and correct.

Kirtley Construction, Inc.

By:_____ Date: _____

Troy Kirtley, President

CITY OF REDLANDS
OFFICE OF THE CITY CLERK
BID OPENING REPORT

The following bids were opened on the **24th of May 2022 at 10:00 a.m.** on behalf of the Municipal Utilities and Engineering Department for **On-Call Sewer Collection System Repair & Construction Services – 20220510-01WW**. The bid amounts have not been checked and are subject to correction after the bids have been completely reviewed.

No.	Plan Holder's Name	Bid Signed	Total Bid Amount
1	MCC Pipeline, Inc. Yucaipa, CA	Yes	$352,729.28
2	Kirtley Construction, dba TK Construction, San Bernardino, CA	Yes	$1,903,000.00

Jeanne Donaldson, City Clerk
City of Redlands, California

Emailed: Councilmembers,
City Manager, City Treasurer, PIO, Press
Department Head: John Harris
Staff: Fernando Mata, Christian Duenez

PART 2

REQUEST FOR BID #20220510-01WW

On-Call Sewer Collection System Repair & Construction Services

BID DOCUMENTS COVER PAGE
Name of Firm, Entity or Organization: Kirtley Construction, Inc. dba TK Construction
Federal Employer Identification Number (EIN): 20-4179624 **State of California License Number (if applicable):** 811801 - Class A, C-34 **Name of Contact person:** Patricia Kirtley **Title:** Secretary/Treasurer **Email address:** tntkirtley@msn.com
Mailing Address: P.O. Box 9608, San Bernardino, CA 92427 **Street Address (if different):** 740 W. 40th Street **City, State, Zip:** San Bernardino, CA 92407 **Telephone:** 909-473-8739 **Fax:** 909-473-3067
Organization: (check one) **Corporation:** ☑ **Proprietorship:** ☐ **Other:** ☐ **Partnership:** ☐ **Joint Venture:** ☐ **If Corporation:** **Date of Incorporation:** 01/01/2006 **State of Incorporation:** California **States Registered in as Foreign Corporation:** N/A
Authorized Signature: **Print Name:** David King **Signature:** **Title:** Vice President **Phone:** 909-473-8739
This document must be completed and returned with your submittal.

BIDDER CERTIFICATION	
On-Call Sewer Collection System Repair & Construction Services	
Submit To: City of Redlands	
Office of the City Clerk 35 Cajon Street, Suite 4 Redlands, CA 92373	**City of Redlands** **Request for Bid (RFB Certification** **And Addenda Acknowledgment**

DUE DATE:	DUE TIME:	REQUEST FOR BID
Tuesday, May 24, 2022	10:00 AM	#20220510-01WW

BIDDER NAME:	PHONE NUMBER:
Kirtley Construction, Inc. dba TK Construction	909-473-8739
BIDDER MAILING ADDRESS:	**FAX NUMBER:**
P.O. Box 9608	909-473-3067
CITY/STATE/ZIP	**E-MAIL ADDRESS:**
San Bernardino, CA 92427	tntkirtley@msn.com

"I, the undersigned, certify that I have reviewed the addenda listed below (list all addenda received to date). I understand that timely commencement will be considered in award of this REQUEST FOR BID and that cancellation of award will be considered if commencement time is not met, and that untimely commencement may be cause for assessment of liquidated damages claims. I further certify that the services will meet or exceed the REQUEST FOR BID requirements. I, the undersigned, declare that I have carefully examined the REQUEST FOR BID, specifications, terms and conditions as applicable for this Request, and that I am thoroughly familiar with all provisions and the quality and type of coverage and services specified. I further declare that I have not divulged, discussed, or compared this REQUEST FOR BID with any other Offer or and have not colluded with any offertory or parties to a REQUEST FOR BID whatsoever for any fraudulent purpose."

Addendum #	Addendum #	Addendum #	Addendum #	Addendum #

"I certify that this quote is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting an REQUEST FOR BID for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this REQUEST FOR BID and certify that I am authorized to sign this response and that the offer is in compliance with all requirements of the REQUEST FOR BID, including but not limited to certification requirements. In conducting offers with an agency for the City of Redlands respondent agrees that if this bid is accepted, the respondent will convey, sell, assign, or transfer to the City all rights, title and interest in and to all causes of action it may now or hereafter acquire under the anti-trust laws of the United States for price fixing relating to the particular commodities or services purchased or acquired by the City. At the City's discretion, such assignment shall be made and become effective at the time the purchasing agency renders final payment to the respondent."

David King - Vice President		5/24/2022
Authorized Bidder Name, Title (Print)	Authorized Signature	Date

This form must be completed and returned with your Submittal

FIRM INFORMATION/ORGANIZATION	
CONTRACT MANAGEMENT CONTACT INFORMATION	
SHOP OWNER OR MANAGER	
NAME	Troy Kirtley
TITLE	President
OFFICE PHONE	909-473-8739
CELL	909-499-1527
FAX	909-473-3067
HOURS AVAILABLE	7:00 AM - 5:00 PM Monday - Friday
CONTRACT MANAGER	
NAME	Patricia Kirtley
TITLE	Secretary/Treasurer
OFFICE PHONE	909-473-8739
CELL	909-499-9595
FAX	909-473-3067
HOURS AVAILABLE	8:00 AM - 4:00 PM Monday - Friday
ALTERNATE CONTACT	
NAME	David King
TITLE	Vice President
OFFICE PHONE	909-473-8739
CELL	909-499-9576
FAX	909-473-3067
HOURS AVAILABLE	7:00 AM - 5:00 PM Monday - Friday
EMERGENCY CONTACT/ AFTER HOURS CONTACT	
NAME	David King
TITLE	Vice President
OFFICE PHONE	909-473-8739
CELL	909-499-9576
FAX	909-473-3067
HOURS AVAILABLE	24hrs / 7 days a week

Executive Summary

Kirtley Construction, Inc. has been in business since 2002 and operates under a dba of TK Construction and is a corporation of the state of California. TK Construction holds a General Engineering, Class A license, 81101 and is located at 740 West 40th Street, San Bernardino, CA 92407. During the past 20 years in business TK Construction has done various water line, sewer line and storm drain installations and repairs as well as concrete work, asphalt work, retaining walls, and pump stations. The pipeline jobs completed have included installation of CML&C, DIP, PVC, clay, RCP and HDPE with diameters ranging from small diameter to 36" for numerous public agencies.

David King: Account Manager

Responsibilities: Coordinating crew mobilization and project management.

Experience:

- 18+ years of experience in underground utilities.
- Bachelor's degree in Economics, Cal State San Bernardino
- Cal Trans 24-Hour SWPPP Certification.
- Department of Transportation, Certified Supervisor in drug and alcohol testing program.
- Department of Public Health, Water Distribution operator D1 Cert: #35599.
- Department of Public Health, Treatment operator T1 Cert: #35829
- CESSWI, Certified Erosion, Sediment, and Storm Water Inspector, # 3150.
- California Certified QSP (qualified storm water practitioner), # 23780.

Other Key Staff

Troy Kirtley: President, Field Superintendent

Responsibilities: Quality Control, crew management, and project execution.

Experience:

- 25+ years of experience specializing in underground utilities
- Competent person training: Trench shoring and Confined Spaces.
- Certified pipeline welder.
- Class A Driver.

Trevor Doyle: Foreman, Supervisor, Welder, Operator.

Responsibilities: Project Foreman.

Experience:

- 13+ years of experience specializing in underground utilities operations.
- Competent person training: Trench shoring and Confined Spaces.
- Certified pipeline welder. Position 6G
- Certified OSHA 30 safety.

Experience and References

1 **Client:** Crestline Lake Arrowhead Water Agency

Contact: Jennifer Ketterhagen **Email:** clawa1@verizon.net

Address: 24116 Crest Forest Dr. Crestline, CA 92325 **Phone:** 909-338-1779 **Fax:** 909-338-3686

Start Date: 2004 **to** Current

Nature of work: On-call contractor: water repairs

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2 **Client:** Western Municipal Water District

Contact: Alex Chang **Email:** achang@wmwd.com

Address: 16451 El Sobrante Rd. Riverside, CA 92503 **Phone:** 951-789-5110 **Fax:** 951-780-0273

Start Date: 2015 **to** Current

Nature of work: On-call contractor: water repairs

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3 **Client:** San Bernardino County Special Districts

Contact: Lisa Green **Email:** lisa.green@sbd.county.gov

Address: 222 W. hospitality Ln. San Bernardino, CA 92415 **Phone:** 909-386-8821 **Fax:** 909-386-8839

Start Date: 2013 **to** Current

Nature of work: On-call contractor: water and sewer repair

---

4 **Client:** San Bernardino Municipal Water Department - Sewer

Contact: Richard Hyle **Email:** richard.hyle@sbmwd.org

Address: 399 Chandler Place San Bernardino, CA 92408 **Phone:** 909-453-6270 **Fax:** N/A

Start Date: 2004 **to** Current

Nature of work: On-call contractor: Sewer leaks, manhole lids, bypass, asphalt repair.

5 **Client:** San Bernardino Municipal Water Department

Contact: Aaron Winchester **Email:** aaron.winchester@sbmwd.org

Address: 397 Chandler Place
San Bernardino, CA
92408
Phone: 909-453-6040 **Fax:** 909-384-5260

Start Date: 2004 **to** Current

Nature of work: On-call contractor: waterline repair, valve install, traffic control, fire hydrant repair.

STATEMENT OF "NO-PROPOSAL RESPONSE"

City of Redlands

If you do not intend to submit a proposal for this project, please complete and return this form prior to date shown for receipt of proposals to:

City of Redlands, Municipal Utilities and Engineering Department
35 Cajon Street Ste. 15A, Redlands, CA 92373
Attn: Christian Duenez, Senior Administrative Assistant

We, the undersigned, have declined to submit a proposal on your **RFB: #** 20220510-01WW
On-Call Sewer Collection System Repair & Construction Services

_____ Specifications are too "tight", i.e. geared toward one brand or manufacturer only (please explain reason below)

_____ Insufficient time to respond to Request for Proposals.

_____ We do not offer this product/s or equivalent.

_____ Remove us from your bidders' list for this commodity or service.

_____ Our product schedule would not permit us to perform to specifications.

_____ Unable to meet specifications.

_____ Unable to meet insurance requirements.

_____ Specifications unclear (please explain below).

_____ Competition restricted by pre-approved owner standards.

_____ Other (please specify below).

Remarks: _____

_____

_____

Company Name: _____

Address: _____

Signature and Title: _____ Title: _____

Telephone Number: _____ Date: _____

PART 3
SCOPE OF SERVICES

SCOPE

The City of Redlands Municipal Utilities and Engineering Department is soliciting bids for:
On-Call Sewer Collection System Repair & Construction Services

The successful bidder will be issued an annual purchase order ("contract") for fiscal year 2021/2022 (July 1, 2022 – June 30, 2023) with optional extensions.

This contract does not commit the City to purchase the quantities indicated. The quantities are estimates and are based on the best available information. The purpose of this contract is to establish prices for the commodities or services needed, should the City need to purchase these commodities or services. Since the quantities are estimates, the City may purchase more than the estimated quantities, less than the estimated quantities, or not purchase any quantities at all. The needs of the City shall govern the amount that is purchased.

As part of the contract/agreement, the City of Redlands will reserve the right to select or reject employees and sub-contractors providing services.

DELIVERY SCHEDULE

Items ordered should be delivered as soon as possible, but no later than twenty one (21) business days from the date of each order.

DELIVERY LOCATION:

- Wastewater Treatment Plant - 1950 Nevada Street Redlands, Ca. 92374

Introduction:

The City of Redlands sewer service area covers approximately 48 square miles and provides wastewater collection service to most parcels within the City limits through approximately 245 miles of gravity sanitary sewer pipeline, and one (1) City-owned lift station. All sewage generated within the service area is conveyed to the City's Wastewater Treatment Plant via a transmission main with diameters consisting of 4, 6,8,10,12,15,18,20,24,27,30,36 and 48 inches, as shown in **Figure ES.1**

Scope of Services:

The work to be performed consist of furnishing all labor, equipment, and material necessary to complete the requested service for the City as required by the Standard Drawings in the City of Redlands' Sanitary Sewer Systems Standard Specifications. City's Sewer pipe material & length listed on **Table ES.2**

https://www.cityofredlands.org/sites/main/files/file-attachments/pw_standards_spec_2020.pdf?1606863175

Services may include but are not limited to:

- Main line sewer replacement of various sizes and material using SDR-35 pipe.
- Main line sewer spot repair of various sizes and material using SDR-35 pipe.
- Manhole invert flow line repair
- Manhole ring and cover repair and replacement (City to provide manhole ring and cover).

- Uncover and raise manholes
- Repair and install manhole bench, shaft, and cone
- Contractor to furnish all equipment, material, and personnel to perform sewer bypass (i.e., set up/take down) and maintain the bypass throughout the entire duration of repairs;
- Contractor must be able to conduct traffic control procedures at job site in roadways and pedestrian walkways at the job site during all phases of work. This includes access to all traffic control devices , and compliance per the California Manual on Uniform Traffic Control Devices (CA MUTCD)
- All work to be performed in a safe manner, using the appropriate personal protective equipment and in accordance with the City's safety practices and CAL-OSHA standards
- Upon request, prepare, and submit for approval and acceptance, an Overflow Response Plan specific to the task and in accordance with the City's Overflow Emergency Response Plan;
- Billing shall be in-line with the Price and Fee Bid sheet
- Contractor is responsible for complete cleanup of job site immediately upon completion
- Contractor shall maintain throughout the life of the contract a valid contractor license issued by the California Contractor State License Board, and having appropriate class and classification for the types of services required by this contract include Class A General Engineering, C34 Pipeline, and/or C42 Sanitation Systems
- Enter into a service agreement with the City for services provided above. The service agreement shall be for a period of one (1) year with the option to extend the initial term by two (2) additional one-year terms
- Contractor must be available 24-hours a day, 7 days a week, and be able to respond onsite within 2-hours for an emergency call out
- Contractor must be within 30 miles from the City of Redlands Municipal Utilities & Engineering Department: 35 Cajon St. Suite 15A, Redlands CA 92373

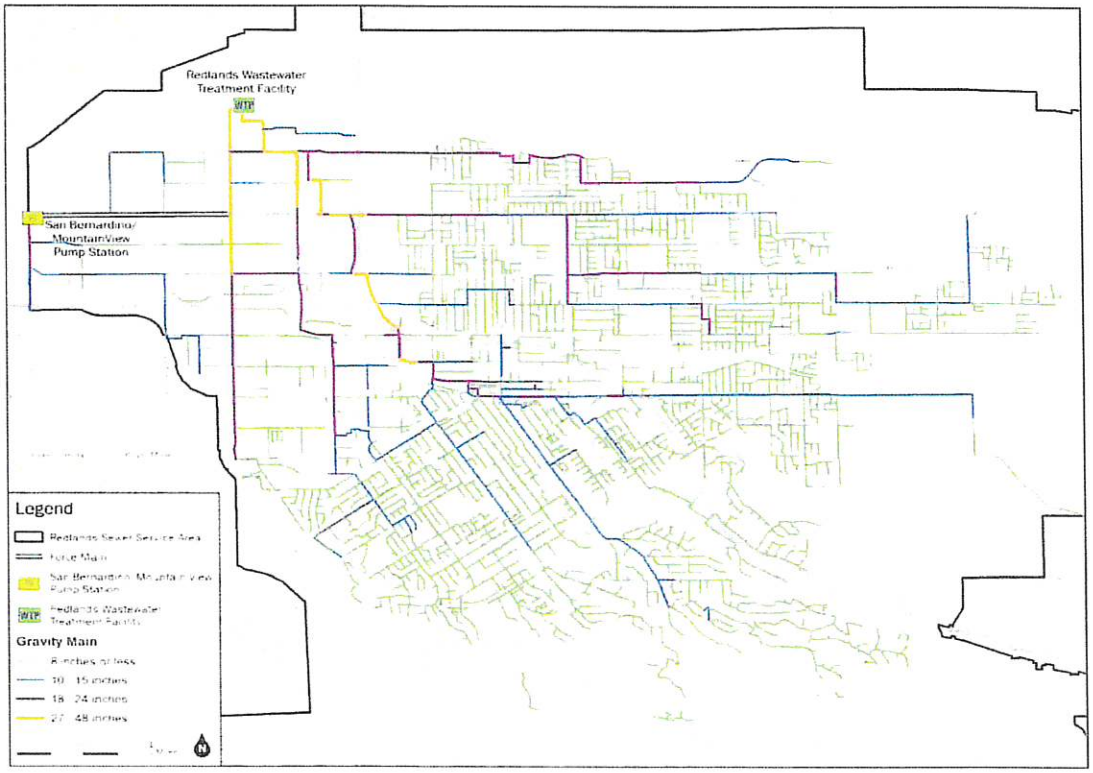

Table ES.2

Size	Material		Length (ft.)
4"			
	Vitrified Clay Pipe		1910.47
	Unknown		532.67
		Total	2443.14
6"			
	PVC		379.45
	Vitrified Clay Pipe		31828.09
		Total	32207.54
8"			
	Asbestos Coated Pipe		1096.46
	Cast Iron		809.5
	Ductile Iron		4225.45
	PVC		200844.2
	Truss Pipe		1853.04
	Vitrified Clay Pipe		234013.17
	Unknown		6988.63
		Total	449830.45
10"			
	Concrete		1148.12
	Ductile Iron		662.64
	PVC		350.04
	Vitrified Clay Pipe		32546.39
		Total	34707.19
12"			
	Cast Iron		1627.02
	PVC		4574.92
	Truss Pipe		1317.96
	Vitrified Clay Pipe		56755.83
		Total	64275.73
14"			
	Ductile Iron		30.4
	Vitrified Clay Pipe		626.1
	Unknown		3
		Total	659.5
15"			
	PVC		12103.75
	Vitrified Clay Pipe		45310.53
	Unknown		10
		Total	57424.28
18"			
	Ductile Iron		219.37
	Epoxy Lined and Coated Steel		671.27
	PVC		1010.78
	Vitrified Clay Pipe		43135.05
		Total	45036.47

20"			
	Epoxy Lined and Coated Steel		663.51
	Vitrified Clay Pipe		2180.28
		Total	2843.79
21"			
	Vitrified Clay Pipe		141117.3
		Total	141117.3
24"			
	Ductile Iron		358.13
	Vitrified Clay Pipe		16588.33
		Total	16946.46
27"			
	Epoxy Lined and Coated Steel		2337.67
	Vitrified Clay Pipe		2137.77
		Total	4475.44
30"			
	Ductile Iron		1471.37
	Epoxy Lined and Coated Steel		1323.83
	Vitrified Clay Pipe		9329.59
		Total	12124.79
36"			
	Vitrified Clay Pipe		130.31
		Total	130.31
48"			
	Reinforced Concrete Pipe		1432.34
		Total	1432.34

PART 4

BID # 20220120 On-Call Sewer Collection System Repair & Construction Services

THIS IS A BRAND SPECIFIC BID, NO SUBSTITUTE WILL BE ACCEPTED

Bidder must bid on all items. Award will be made to the lowest responsive and responsible bidder.

ITEM	DESCRIPTION	Unit of Measure	Unit Price
1	Raise Sewer Manhole	each	$ 5,000.00
2	Uncover and Raise Sewer Manhole	each	$ 5,000.00
3	Repair Invert Flow Line of Manhole	each	$ 5,000.00
4	Repair Manhole Bench	each	$ 5,000.00
5	Install Manhole Bench	each	$ 5,000.00
6	Repair Manhole Shaft and Cone	each	$5,500.00
7	Replace Manhole Ring and Cover (City to Supply Ring & Cover)	each	$3,500.00
8	Install new Manhole (City to supply Ring & Cover)	each	$ 20,000.00
9	Main Sewer Line Spot Repair with 4" SDR-35 @ 3'-8' depth	per linear foot	$16,000.00
10	Main Sewer Line Spot Repair with 4" SDR-35 @ 8'-15' depth	per linear foot	$20,000.00
11	Main Sewer Line Spot Repair with 6" SDR-35 @ 3'-8' depth	per linear foot	$18,000.00
12	Main Sewer Line Spot Repair with 6" SDR-35 @ 8'-15' depth	per linear foot	$22,000.00
13	Main Sewer Line Spot Repair with 8" SDR-35 @ 3'-8' depth	per linear foot	$ 20,000.00
14	Main Sewer Line Spot Repair with 8" SDR-35 @ 8'-15' depth	per linear foot	$30,000.00
15	Main Sewer Line Spot Repair with 10" SDR-35 @ 3'-8' depth	per linear foot	$22,000.00
16	Main Sewer Line Spot Repair with 10" SDR-35 @ 8'-15' depth	per linear foot	$35,000.00
17	Main Sewer Line Spot Repair with 12" SDR-35 @ 3'-8' depth	per linear foot	$23,000.00

18	Main Sewer Line Spot Repair with 12" SDR-35 @ 8'-15' depth	per linear foot	$36,000.00
19	Main Sewer Line Spot Repair with 15" SDR-35 @ 3'-8' depth	per linear foot	$25,000.00
20	Main Sewer Line Spot Repair with 15" SDR-35 @ 8'-15' depth	per linear foot	$37,000.00
21	Main Sewer Line Spot Repair with 18" SDR-35 @ 3'-8' depth	per linear foot	$25,000.00
22	Main Sewer Line Spot Repair with 18" SDR-35 @ 8'-15' depth	per linear foot	$38,000.00
23	Main Sewer Line Spot Repair with 20" SDR-35 @ 3'-8' depth	per linear foot	$35,000.00
24	Main Sewer Line Spot Repair with 20" SDR-35 @ 8'-15' depth	per linear foot	$46,000.00
25	Main Sewer Line Spot Repair with 24" SDR-35 @ 3'-8' depth	per linear foot	$45,000.00
26	Main Sewer Line Spot Repair with 24" SDR-35 @ 8'-15' depth	per linear foot	$55,000.00
27	Main Sewer Line Spot Repair with 27" SDR-35 @ 3'-8' depth	per linear foot	$55,000.00
28	Main Sewer Line Spot Repair with 27" SDR-35 @ 8'-15' depth	per linear foot	$65,000.00
29	Main Sewer Line Spot Repair with 30" SDR-35 @ 3'-8' depth	per linear foot	$65,000.00
30	Main Sewer Line Spot Repair with 30" SDR-35 @ 8'-15' depth	per linear foot	$75,000.00
31	Main Sewer Line Spot Repair with 36" SDR-35 @ 3'-8' depth	per linear foot	$75,000.00
32	Main Sewer Line Spot Repair with 36" SDR-35 @ 8'-15' depth	per linear foot	$85,000.00
33	Main Sewer Line Spot Repair with 48" SDR-35 @ 3'-8' depth	per linear foot	$85,000.00
34	Main Sewer Line Spot Repair with 48" SDR-35 @ 8'-15' depth	per linear foot	$95,000.00
35	Main Sewer Line Replacement with 4" SDR-35 Pipe @ 3'-8' depth	per linear foot	$10,000.00
36	Main Sewer Line Replacement with 4" SDR-35 Pipe @ 8'-15' depth	per linear foot	$12,000.00

37	Main Sewer Line Replacement with 6" SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 11,000.00
38	Main Sewer Line Replacement with 6" SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 13,000.00
39	Main Sewer Line Replacement with 8" SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 12,000.00
40	Main Sewer Line Replacement with 8" SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 14,000.00
41	Main Sewer Line Replacement with 10" SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 13,000.00
42	Main Sewer Line Replacement with 10" SDR-35 Pipe @ 8'-15' depth	per linear foot	$15,000.00
43	Main Sewer Line Replacement with 12" SDR-35 Pipe @ 3'-8' depth	per linear foot	$14,000.00
44	Main Sewer Line Replacement with 12" SDR-35 Pipe @ 8'-15' depth	per linear foot	$16,000.00
45	Main Sewer Line Replacement with 15" SDR-35 Pipe @ 3'-8' depth	per linear foot	$20,000.00
46	Main Sewer Line Replacement with 15" SDR-35 Pipe @ 8'-15' depth	per linear foot	$25,000.00
47	Main Sewer Line Replacement with 18" SDR-35 Pipe @ 3'-8' depth	per linear foot	$20,000.00
48	Main Sewer Line Replacement with 18" SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 25,000.00
49	Main Sewer Line Replacement with 20" SDR-35 Pipe @ 3'-8' depth	per linear foot	$30,000.00
50	Main Sewer Line Replacement with 20" SDR-35 Pipe @ 8'-15' depth	per linear foot	$35,000.00
51	Main Sewer Line Replacement with 24" SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 35,000.00
52	Main Sewer Line Replacement with 24" SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 37,000.00
53	Main Sewer Line Replacement with 27" SDR-35 Pipe @ 3'-8' depth	per linear foot	$35,000.00
54	Main Sewer Line Replacement with 27" SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 37,000.00
55	Main Sewer Line Replacement with 30" SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 35,000.00

56	Main Sewer Line Replacement with 30" SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 37,000.00
57	Main Sewer Line Replacement with 36" SDR-35 Pipe @ 3'-8' depth	per linear foot	$35,000.00
58	Main Sewer Line Replacement with 36" SDR-35 Pipe @ 8'-15' depth	per linear foot	$37,000.00
59	Main Sewer Line Replacement with 48" SDR-35 Pipe @ 3'-8' depth	per linear foot	$ 38,000.00
60	Main Sewer Line Replacement with 48" SDR-35 Pipe @ 8'-15' depth	per linear foot	$ 40,000.00
61	Sewer Bypass Set-Up, Monitoring and Take Down	daily rate	$ 50,000.00
	TOTAL SUM BID (1 through 61)		$ 1,903,000.00

For any item(s) that do not have price listed in the item list you are bidding on, vendor shall offer the best available government pricing, the City will pay up to 20% above manufacturers cost.

Please indicate the not-to exceed percent (%) mark-up you offer: 15%.

CONTRACT TERM (Please Complete)

The City may [X] or may not [ ] exercise its option to renew this agreement as stipulated under the same price, terms and conditions for a period one [X] two [ ] three [ ] additional year(s).

Signature _____ Title Vice President Date May 24, 2022

CITY OF REDLANDS

BUSINESS TAX CERTIFICATE

"For Services Provided in the City of Redlands, California Only"

2022

TO BE POSTED IN A CONSPICUOUS PLACE
AND
NOT TRANSFERABLE OR ASSIGNABLE

Business Name TK CONSTRUCTION

Business Location Job Site
Redlands, Ca 92374

Business Owner(s) TROY KIRTLEY
PATRICIA KIRTLEY

Business Type Contractor- General

Description GEN CONST-UTILITIES

KIRTLEY CONSTRUCTION INC
TK CONSTRUCTION
PO BOX 9608
SAN BERNARDINO, CA 92427-0601

Certificate Number: 08122570

Effective Date January 01, 2022

Expiration Date December 31, 2022

THIS BUSINESS TAX CERTIFICATE DOES NOT PERMIT A BUSINESS THAT IS OTHERWISE PROHIBITED.

For all inquiries regarding this license, contact HdL Business Tax Support Center at (909) 479-2111.

TK CONSTRUCTION:

Thank you for your payment on your City of Redlands Business Tax Certificate. **ALL CERTIFICATES MUST BE AVAILABLE FOR INSPECTION UPON REQUEST.** If you have questions concerning your business tax certificate, contact the Business Tax Support Center via email at: Redlands@hdlgov.com or by telephone at: (909) 479-2111.

Keep this portion for your tax certificate separate in case you need a replacement for any lost, stolen, or destroyed tax certificate. A fee may be charged for a replacement or duplicate tax certificate.

This certificate does not entitle the holder to conduct business before complying with all requirements of Redlands Municipal code and other applicable laws, nor to conduct business in a zone where conducting such business violates law.

If you have a fixed place of business within the city limits of City of Redlands, please display the Business Tax certificate above in a conspicuous place at the premises. Otherwise, every Business Tax Certificate holder not having a fixed place of business in the City shall keep the Business Tax Certificate upon his or her person, or affixed in plain view upon any cart, vehicle, van or other movable structure or device at all times if required by the Collector.

Starting January 1, 2021, Assembly Bill 1607 requires the prevention of gender-based discrimination of business establishments. A full notice is available in English or other languages by going to: https://www.dca.ca.gov/publications/.

BUSINESS SUPPORT CENTER
8839 N CEDAR AVE #212
FRESNO, CA 93720-1832

City of Redlands
BUSINESS TAX CERTIFICATE

HD10117A SNGLP 926
7000001115 00.0004.0270 1115/1

KIRTLEY CONSTRUCTION INC
TK CONSTRUCTION
PO BOX 9608
SAN BERNARDINO CA 92427

Certificate Number: 08122570

Date of Issue: 01/01/2022

Form **W-9**
(Rev. October 2018)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

▶ Go to *www.irs.gov/FormW9* for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

Print or type. See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
Kirtley Construction, Inc.

2 Business name/disregarded entity name, if different from above
TK Construction

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☑ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any)

Exemption from FATCA reporting code (if any)

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.
P.O. Box 9608

Requester's name and address (optional)

6 City, state, and ZIP code
San Bernardino, CA 92427

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number
☐☐☐ – ☐☐ – ☐☐☐☐

or

Employer identification number
2 0 – 4 1 7 9 6 2 4

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here Signature of U.S. person ▶ [signature] Date ▶ 1/18/2022

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9.*

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, *later.*

KIRTCON-01 TWANG

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 6/23/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 0C36861
Inland Empire-Alliant Insurance Services, Inc.
685 Carnegie Dr Ste 265
San Bernardino, CA 92408

CONTACT NAME: Christina M Mountz
PHONE (A/C, No, Ext): (909) 886-9861 FAX (A/C, No): (909) 886-2013
E-MAIL ADDRESS: cmountz@alliant.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Travelers Indemnity Company of Connecticut	25682
INSURER B: Travelers Property Casualty Company of America	25674
INSURER C: Insurance Company of the West	27847
INSURER D: Westchester Surplus Lines Insurance Company	10172
INSURER E:	
INSURER F:	

INSURED
Kirtley Construction Inc dba TK Construction
PO Box 9608
San Bernardino, CA 92427

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X $5,000 PD Ded GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:			DT22-CO-7N554763-TCT-21	7/1/2021	7/1/2022	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG EBL AGGREGATE	$ 1,000,000 $ 300,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY X $1,000 Comp Ded / X $1,000 Coll Ded			BA-7N557986-21-26-G	7/1/2021	7/1/2022	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $ $
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 10,000			CUP-7N915063-21-26	7/1/2021	7/1/2022	EACH OCCURRENCE AGGREGATE Over GL/AL/EL	$ 4,000,000 $ 4,000,000 $
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N Y If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		WSD 5034157 05	7/1/2021	7/1/2022	X PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
D	Pollution Liability			G73552126001	7/1/2021	7/1/2022	Occ/Aggregate	2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Proof of Insurance.

CERTIFICATE HOLDER

Kirtley Construction Inc dba TK Construction
PO Box 9608
San Bernardino, CA 92427

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
Jay P Freeman

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